

THE

Gentleman's Compleat Military

DICTIONARY.

CONTAINING

The *Military Art* ; Explaining the Terms and Phrases us'd in the Field or Garrison ; The Terms relating to *Artillery* ; The Works and Motions of *Attack* and *Defence* ; and the Post and Duty of all the Officers of the Army : Illustrated with Historical Instances, taken from the Actions of our Armies.

Time ALSO *Peace*

A COPPER PLATE, Representing a regular Pentagon, with additional Out-Works, Regular and Irregular, as the Situation requires ; together with the Method of Fortification by the best Authors.

[Done in Alphabetical Order.]

THE EIGHTEENTH EDITION.

BY B. J. T. O. N. :

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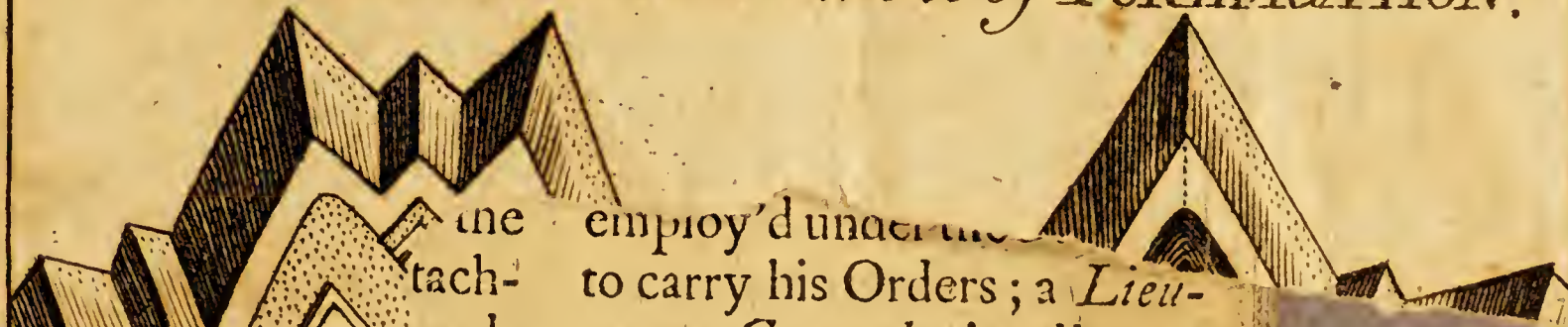
FORTIFICATION according to M^r BLONDEL.

Fig. 1. Plan



Fig 3 A fortifie

M^r VAUBAN'S Method of FORTIFICATION.



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serves and distributes
munition to the Compa-
nies, keeps a Roll of the
Officers, to do them Justice
in their Duty; and, by the

employ'd under the
to carry his Orders; a Lieu-
tenant-General is allowed
two Aids de Camp, and a
Major-General one.

ALARM is a sudden
Calling to Arms, upon an
Apprehension of Danger
from

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M I L I T A R Y

DICTIONARY.

A D J

A DJUTANT, or *Aid-Major*, is an Officer appointed to ease the Major in his Duty: he nightly receives the Orders from the *Brigade-Major*, which he carries to his *Colonel*, and then delivers them to the *Serjeants* assembled in a Ring. If there be Detachments for Convoys, Guards or Parties, he gives the Number each Company must furnish, with the Hour and Place of Rendezvous: he places the Guards, and makes Detachments for what other Guards the Regiment is to furnish. He receives and distributes Ammunition to the Companies, keeps a Roll of the Officers, to do them Justice in their Duty; and, by the

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Major's Order, regulates the Price of Bread, Beer, Meat, &c. to prevent the Men's being imposed on by the *Sutlers*. Each Regiment of Horse has an *Adjutant*, and a Regiment of Foot has one for each Battalion.

Advance-Fosse, is a Moat round the *Glacis*, or Esplanade of a Place to prevent a Surprise.

Aid de Camp is an Officer employ'd under the *General*, to carry his Orders; a *Lieutenant-General* is allowed two *Aids de Camp*, and a *Major-General* one.

A L A R M is a sudden Calling to Arms, upon an Apprehension of Danger from

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from the Enemy; a false *Alarm* is sometimes occasion'd by a fearful and negligent *Centinel*, and sometimes designedly by a diligent Officer, to try the Vigilance of the Guards.

Alarm-Post is the Ground appointed by the *Quarter-Master-General* for each Regiment to march to, in case of an *Alarm*: *Alarm-Post* in a Garrison, is the Place allotted each Regiment to draw up in.

AMBUSCADE or *Ambush*, is a lurking Party in a Wood, or other convenient Place to surprize an Enemy.

AMMUNITION implies all Sorts of Military Stores.

Ammunition-Bread is carried with an Army for the Subsistence of the Troops; each *Soldier* receiving a Loaf of six Pound every 4 Days.

ANGLE in Fortification, is thus explain'd. (1.) *Angle of the Centre*, is made by two Lines drawn from the Center, to any Side of the Polygon. (2.) *Angle of the Polygon*, is made by the meeting of two Sides of the Polygon, and is the same with the *Angle of the Gorge*.

A N T

(3.) *Angle of the Curtin* or of the *Flank*, is form'd by meeting of a Flank and a Curtin. (4.) *Angle of the Shoulder*, is formed by one Face and one Flank. (5.) *Flanked Angle*, is the meeting of two Faces. (6.) *Angle of the Tenail*, or *Flanking Angle*, is composed of the Line of Defence and the Curtin. (7.) *Angle forming the Flank*, is an Angle composed of one Flank and one Demigorge. (8.) *Angle forming the Face*, is the inward Angle, composed of one Flank and one Face. (9.) *Angle of the Moat* is formed before the Center of the Curtin, by the outward Line of the Fossè. (10.) *Angle Salliant*, or *Sallying Angle*, advances with its Point toward the Country; such is the Angle of the Counterscarp before the Point of a Bastion. (11.) *Angle Rentrant*, or *Reentering Angle*, points towards the Body of the Place; as the Angle of the Counterscarp before the Center of the Curtin.

ANTESTATURE is a Retrenchment hastily made of

A R M

of Gallies or Palisades, to check an Enemy who is gaining Ground. This is call'd to Dispute Ground.

APPROACHES are the Trenches, Places of Arms, Lodgments, Sap, Gallery, and all Works whereby the the Besiegers advance towards a Place; see *Attack* and *Trench*.

ARMS; *Place of Arms* in a Garrison, is a Place allotted for the Garrison to draw up in, upon any Alarm, or other Occasion. *Place of Arms* at a Siege are small Redoubts edged with a Parapet, containing a small Party of Men, to defend the Trenches against Sallies.

ARMY is a Body of Troops consisting of Horse, Foot and Dragoons, with Artillery and Provisions. It is divided into Brigades.

Flying-Army is a small Body under a *Lieutenant* or *Major-General*, sent out to harraß the Country, intercept Convoys, prevent the Enemies Incurßions, cover its own Garrisons, and keep the Enemy in continual Alarm.

Wings of an Army, are the Troops encamped on

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the Flanks; they are generally Horse and Dragoons, and are called the Right and Left Wings.

ARTILLERY is a Magazine of all sorts of Arms and Provisions for an Army, as Cannon, Mortars, Bombs, Balls, Petards, Grenades, small Balls, Powder, Match, all sorts of Hand-Tools, Planks, Boards, Rope, Coal, Tallow, Pitch, Rosin, Sulphur, Salt-petre, Quick-match, all sorts of Fireworks, Pontons, and many other Things. The Attendants are *Conductors*, *Bombardeers*, *Gunners*, *Matrosses*, *Pioneers*, *Ponton-Men*, *Carpenters*, *Wheelwrights*, *Smiths*, *Coopers*, *Tin-Men*, and *Collar-Makers*.

Artillery-Park is a Place appointed by the *Quarter-Master-General* in the Rear of both Lines of the Army for encamping the Artillery which is drawn up in Lines; the Guns are in one Line; the Ammunition Waggon form two or three Lines, 60 Paces behind the Guns, and 30 from each other; the Pontons and Tumbrils make the last Line; The whole

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is surrounded with a Rope, which forms the *Park*. The *Gunners* and *Matrosses* encamp on the Flanks, and the *Conductors*, *Bombardeers*, *Ponton-Men* and *Artificers* in the Rear.

ASSAULT or *Storm*, is the Effort made to carry a Post, and is generally made by the Regiments that have the Guard of the Trenches, sustained by Detachments from the Army; while the Assault continues, the Batteries cease for fear of killing their own Men.

ASSEMBLY is the second Beat of Drum before a March; the first is called the *General*, the *Soldiers* then prepare to march; the second is called the *Assembly* at which they strike, and roll up their Tents, and stand to their Arms; and the third is called the *March*, and then the Army begins to move.

ATTACK; to attack a Fort, a Post, or a Body of Troops, is the same as to assault, or endeavour to carry a thing by force; it is a much properer Word than *Assault*.

Attack; the Attacks in a Siege are the Works, whereby the Besiegers advance

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under Cover to the Place. There are commonly two Attacks, each mounted by a General Officer, and these have mutual Communication, by Lines or Trenches, parallel to the Polygon of the Place, that they may not be enfiladed, and are called the *Parallels*, the *Boyau*, or the *Lines of Communication*.

False Attacks are never carried on with that Vigour, as the other; being designed to favour the real Attack by amusing the Enemy, and obliging the Garrison to a stricter Duty.

B

BACULE is a Gate made like a Pit-fall, with a Counter-poize before the *Corps de Gardes* advanced near the Gates, which is supported by two great Stakes.

BAGGAGE-WAGGONS are those in which the Officers and Regiments Baggage is carried; before a March they are appointed a Rendezvous, and are there marshall'd by the *Waggon-Master-General*, according to the Rank the Regiments have in the Army. On a March

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March they are sometimes ordered to follow their respective Columns of the Army, sometimes to follow the March of the Artillery, and sometimes to make a Column by themselves. The *General's* Baggage is first. If the Army march from the Right, the Baggage of that Wing has the Van: if from the Left, the Baggage of the Left has the Van; Each Waggon has a distinguishing Flag to show to what Regiment it belongs.

BAGONET is a short broad Dagger, made with Iron Handles and Rings that go over the Muzzle of the Firelock, and are screwed fast; so that the *Soldier* fires with the Bagonet on the Muzzle of his Piece, and is ready to act against Horse.

Ball, Red-hot Ball, are made hot in a Forge near the Gun: Which being loaded with Powder, and wadded with a green Turf, is spung'd with a wet Sponge, and laid at a small Elevation; that the Ball, which is taken from the Forge with a long Iron Ladle may slide down, the *Gunner* at the same time being ready to Fire: It not

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only fires combustible Matter, but floors and Planks.

Ball, Fire Balls. Are a Composition of Meal-Powder, Sulphur, Saltpetre, Pitch, &c. for Firing Houses that incommode Trenches or Advance Posts; and are thrown by *Soldiers*.

BANQUETT in Fortification, is a Foot Bank of Earth about a foot and a half high, and three broad, raised on the Rampart at the Foot of the Parapet, for the *Soldiers* to mount on to fire over.

BARBE, to fire in the *Barbe*, signifies firing over the Parapet, instead of using the Embrasures; the Parapet must not be above three Foot and an half high.

Barrels, Thundering Barrels are filled with Bombs, Grenades, and other Fireworks, to be rolled down a Breach.

BARRICADE, a Term sometimes used for a Fence of Palisades.

BARRIERE is a Gate of Wooden Bars, about five Foot long perpendicular to the Horison, which are kept together by two long cross Bars, and another crossing

ing Diagonally. They are used to stop the Cut that is made through the Esplanade, before the Gate of a Town.

BASE or *Basis*, of a Rampart, is where it joins the Ground on which it stands; *Basis* of a Parapet, is, where it joins the top of the Rampart.

Base, see *Cannon*.

BASKETS, small *Baskets* are used in Sieges on the Parapet of the Trench, they are filled with Earth, and about a Foot and a half high, about a foot and a half Diameter at top, and 8 or 10 Inches at bottom; so that when set together, there is a sort of Embrasures, at their Bottoms, through which the *Soldiers* fire without being exposed.

BASTION is a Mass of Earth raised on the Angles of the Polygon, compounded of two Flanks, and as many Faces, sometimes cased with Brick or Stone. They are distant from each other about 150 Yards: Are *regular*, when the Extent of their Faces is equal, their Flanks the same, and the two angles of the Shoulder equal: Or *Irregular* where that equali-

ty is omitted: Or *Deformed*, where the Irregularity of the Lines and Angles makes the Bastion disproportioned. They are *hollow*, when only surrounded with a Rampart and Parapet, leaving the inward Space empty: Or *solid*, when that Space is raised to the Height of the Rampart.

Bastion-Flat is when the Side of the Polygon being twice the usual Length, a Bastion is raised before the middle of the Curtin, which, as its Capital is short, has the flanked Angle very obtuse, which makes the Gorge large, and the Bastion very flat.

A *Bastion-detach'd*, One separated from the Body of the Place, and it differs from a Half Moon, whose Rampart and Parapet are not so high and thick as those of the Place, because it is equally proportioned with the Works of the Place.

Bastion, Double-Bastion is raised on the Plain of another Bastion, and is sometimes in the Nature of a *Cavalier*.

Demibastion is composed of

B A T

of one Face Flank, and Demigorge.

BATTALION is a Body of Foot, generally 700, exclusive of Officers and Sergeants, armed with Firelocks, Swords & Bagonets, divided into thirteen Companies, one of which is Grenadiers. The first Regiment of *English* Guards has four Battalions; the second Regiment, that of *Scots* Guards, and the Royal *Scots*, have two Battalions; the rest are but one Battalion each.

BATTERY is a Parapet thrown up to cover the Men employed about the Guns, from the Enemies Shot. This Parapet is cut into *Embrasures* for the Cannon to fire through; the inward Height of the *Embrasures* is about three Foot, but they slope lower to the Out-side; they are two or three Foot wide, but open to six or seven on the Outside. The Mass of Earth between two *Embrasures*, is called the *Merlon*. The *Platform* of a Battery is a Floor of Planks and Sleepers, to prevent the Gun Wheels from sinking into the Earth, and slopes towards the *Embrasure*, to hinder the Re-

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verse, and facilitate the bringing back of the Gun; see *Platform*.

Battery of Mortars differs from that of Guns, being sunk into the Ground, and without *Embrasures*; the *Dutch* call it *Kettle*.

Battery, Cross-Batteries are such whose Shot meet, and form an Angle as the one beats down what the other shakes, they do good Execution. *Battery d' Enfilade*, is what batters in Flank. *Battery en Echarpe*, is what batters obliquely. *Battery de Reverse*, is what plays upon the Enemies Back. *Comrade Batteries*, are those which play upon the same Place. *To raise a Battery*, is an Engineer's Business. *To bring Guns upon Battery* if at a Siege, must be in the Night by Men, having Harness fitted for that use. *To ruin a Battery*, is to blow it up or nail the Guns.

Battery-Master; his Province is to raise the Batteries; but that Office is now suppressed in *England*, though not in *Holland*.

Battle Array is the Order in which an Army is formed.

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med at a Review, and is more properly called the *Line of Battle*.

BERM, see *Liziere*.

BIOVAC is a Night-Guard, performed by the whole Army, when they are apprehensive of Danger from an Enemy.

BLINDS are every thing that covers the Besiegers from the Enemy, such as Fascines, Gabions, Sand-Bags, Earth Baskets, Wool-Packs, &c. (see the *Plate*.)

BLOCKADE is the blocking up a Place, by posting Troops at all the Avenues to it, to prevent its receiving Recruits of Men or Provisions, when the Intention is to starve it out, without making regular Attacks; this is called *forming a Blockade*. To raise a Blockade, is to dislodge the Troops that keep the Place blocked up from their Posts. To turn a Siege into a Blockade, is plain.

BODY or *Main-Body* of an Army, are the Troops encamped betwixt the two Wings, and are commonly Infantry.

BOLTS, in Gunnery, are of several Sorts; those

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between the Cheeks of a Gun Carriage, to strengthen the Transoms, are called the *Transum-Bolts*. The large Knobs of Iron on the Cheek of a Carriage which keep the Hand-Spike steady, when it poises the Breech of the Piece, are called *Prise-Bolts*. The two short Bolts, that when they are inserted in each end of an *English* Mortar Carriage serve to traverse her, are called *Traverse Bolts*. The Bolts that pass through the Cheeks of a Mortar, and keep it fixed at the Elevation, by the Aid of Coins, are called *Bracket-Bolts*, and the four Bolts that fasten the Brackets or Cheeks of a Mortar to the Bed, are called *Bed-Bolts*.

BOMB is a large Shell of cast Iron, with a spacious Vent for the Reception of a Fusée, which is made of Wood, and full of a Composition of Meal-Powder, Sulphur and Salt-Petre. When the Bomb is filled with Powder, the Fusée is fixed into the Vent within an Inch of the Head, and Pitch'd over to preserve it. When

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When the Bomb is put into the Mortar, the Fusée is uncaped, and strewed with Meal-Powder ; it is fired from the Flash of the Powder in the Chamber, and burns all the while the Bomb is in the Air ; when the Composition is spent, it fires the Powder in the Bomb, which being confin'd, bursts the Bomb in a violent manner, and blows up all about it.

Bombardiers are those employed about a Mortar: they drive the Fusée, fix the Shell, load and fire the Mortar, and work with the Fire-Workers on all Kinds of Fire-Works.

Bomb-Ketch is a small Vessel built and made strong with large Beams, for the Use of Mortars at Sea.

BONNET is a small Work composed of two Faces, with only a Parapet, and two Rows of Palisades of about 10 or 12 Foot Distance; it is usually raised before the Salient Angle of the Counterescarp, and communicates with the Covert Way, by a Trench opened through the Glacis and Palisades on each Side.

Bonnet a Pretre or *Priest's*

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Bonnet, is a Work in Fortification that differs from a double Tenail in this, that the Sides of a Tenail are parallel, those of a *Priest's Bonnet* would meet were they prolong'd.

BOYAU or *Branch of a Trench*, is a Line, or a particular Trench, parallel to the Defence of the Place, to prevent the Troops from being flanked or enfiladed. A *Boyau* when two Attacks are made upon a Place, performs the Office of a Line of Communication between them ; the Parapet of a *Boyau* being still turn'd towards the Place besieged, serves for a Line of Contravallation to prevent Sallies, and protect Workmen.

BREACH is the Demolition of any part of a Fortification by the Cannon or Mines of the Besiegers, preparatory to an Attack upon the Place. To render the Attack more difficult, the Besieged sow the Breach with Crow-Feet or stop it with *Chevaux de Frise*.

BREAK Ground, is the first opening of Trenches against a Place, which is per-

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formed in the Night, by the Advantage of some Eminences, hollow Way, or whatever will cover the Men from the Fire of the Enemy.

EREAST - WORK, see *Parapet*.

Bridge of Communication is a Bridge thrown over a River, by which two Armies or Forts separated by the River, communicate with each other.

Draw-Bridges are made in several manners, but the most common are formed with Plyers twice the Height of the Gate, and a Foot diameter; the inner Square is traversed with a St. *Andrew's* Cross, which serves for a Counterpoize, and the Chains which hang from the other Extremities of the Plyers to raise or fall the Bridge, are of Iron or Brass.

Floating or flying Bridges are composed of two small Bridges disposed one upon the other, so that the uppermost, by the Aid of Ropes and Pullies, is pushed forwards, till its End join to the Place intended

Bridge of Boats, see *Pontons*.

Bridge in Gunnery, is

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the two Pieces of Timber between the two middle Transoms of a Gun Carriage, on which the Bed rests.

BRIGADE. An Army is distributed into Brigades of Horse and Foot; a Brigade of Horse is composed of eight or ten Squadrons; a Brigade of Foot consists of four, five or six Battalions, commanded by a Brigadier; the eldest Brigade has the Right of the first Line, and the second has the Right of the second Line; the two next are in the left of the two Lines, and the youngest possesses the Center. The Battalions which compose a Brigade observe the same Order.

Brigadier is a general Officer who commands a Brigade; the eldest Colonels are commonly advanced to this Post, they roll in Duty among themselves; he who is upon Duty, is called *Brigadier of the Day*, and visits all the Out-Guards and Posts of the Army, and at Night receives the Orders from the *Major-general* of the Day, and delivers, it to the *Majors* of Brigades, who

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who must all attend at a regular Time. They march at the Head of their Brigades, and are allowed a *Sergeant*, with ten Men of their own Brigade for their Guard.

Brigadier and *Sub-brigadiers*, are Posts in the Horse Guards.

Brigade-Major, is an Officer appointed by the *Brigadier* to assist him in the Affairs of his Brigade; and acts in his Brigade, as a *Major General* does in the Army. The most able *Captains* are nominated to this Post. They are to wait at stated Times to receive the Word and Orders which they carry first to their *Brigadier*, and then deliver them to the *Adjutants* of Regiments at the Head of the Brigade, where they regulate together the Guards, Parties, Detachments and Convoys, and appoint them the proper Hour and Place of Rendezvous at the Head of the Brigade, where the *Brigade-Major* receives and marches them to the general Rendezvous. It is incumbent on him to know the State of the Brigade, and to keep a Roll of the *Colonels*, *Lieutenant Co-*

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lonels, *Majors* and *Adjutants*.

When a Detachment is to be made, the *Major General* of the Day settles with the *Brigade Majors*, the Number of Men and Officers each Brigade must furnish; and they again regulate with the *Adjutants* of the Regiments, what Complements each Battalion is to furnish, which the *Adjutants* divide among the Companies. The Complements each Regiment is to supply, are taken by the *Adjutant* at the Head of each Regiment at the Hour appointed, and he delivers them to the *Brigade-Major* at the Head of the Brigade, who again delivers them to the *Major General* of the Day, and he remits them to the Officer appointed to command the Detachment.

BRINGERS-UP are all the last Rank of a Battalion, composed of the last Man of each File.

BUDGE-BARRELS are small Barrels well hoop'd with only one Head; on the opposite End is nailed a piece of Leather to draw together with Strings like a Purse. Their Use is for carrying

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carrying Powder along with a Gun or Mortar, as they are less dangerous, and more portable than whole Barrels; they are also used on a Battery of Mortars, to contain Meal-Powder.

BULWARK is an old Term for Rampart, See *Rampart*.

C

CADET is a young Gentleman, who to gain some Experience in Military Affairs, with a View of Preferment, is willing at first to carry Arms like a private Man in a Company of Foot. He differs from a Volunteer, because he takes Pay, which is no more than a private Man; but a Volunteer serves without Pay.

Cadet among the *French* signifies an Officer, who, in respect of another, is younger in Service.

CAISSON is a Wooden Chest, containing four or six Bombs, sometimes filled only with Powder, and buried by the Besieged under Ground, to blow up a Work which the Besiegers are like to Master; when the Bonnet is blown up by the Mine, they place a

C A M

Caisson under its Ruins, and the Enemies being advanced to make a Lodgement there, they fire the *Caisson* with a Saucis or Pudding, and blow up the Post a second Time.

CALIBER-COMPASSSES are Gunners Compasses for taking the Diameters of the several parts of a Piece of Ordnance, or Bombs, Bullets, &c. Their Legs are circular on a brazen Arch, marked with Inches and half Inches, to show how far the Points of the Compasses are opened asunder. Some are made for taking the Diameter of the Bore of a Gun or Mortar.

CALTHROPS, see *Crow-Feet*.

CAMP is the Ground where an Army pitch their Tents, and is marked out by the *Quarter-Master General*, who allots every Regiment its Ground. The chief Advantages to be considered in chusing a Camp, is to have it near Water, in a Country of Forage, and where the *Soldiers* may find Wood for dressing their Victuals; it ought to have a free Communication with Garrisons, for a constant

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constant Supply of Provisions. The *Quarter-Master-General* in chusing the Camp, should consider the Advantages of the Ground ; such as Hills, Marshes, Woods, Rivers, &c. if the Camp be near the Enemy, and no River or Marsh to cover it, it ought to be entrenched. An Army always encamps fronting the Enemy, and generally in two parallel Lines about 500 Yards distant, the Horse and Dragoons on the Wings, and the Foot in the Center ; sometimes a small Body of two, three or four Brigades encamps behind the two Lines, and is called the *Body of Reserve*. The Artillery and Bread Waggon are generally encamped in the Rear of the two Lines. A Battalion of Foot is allowed 80 or 100 Paces for its Camp, and 30 or 40 for an Interval, betwixt one Battalion and another. A Squadron of Horse is allotted 30 for its Camp, and 30 for an Interval, and more, if the Ground will allow it. Each Battalion posts a small Guard, commanded by a Subaltern Officer, about one hundred Yards before the Front of the Regi-

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ment ; called the *Quarter-Guard*, for the Security of the Regiment ; and each Regiment of Horse mounts a small Guard on Foot in the Front of a Regiment under a *Corporal*, called *Standard-Guard*. The Grand Guard of the Army consists of Horse, posted a Mile and a half from the Camp towards the Enemy, on the Right and Left, by the *Lieutenant* or *Major-General* of the Day, who chuses the most commodious Places, from whence all the Avenues of the Camp may be discovered. At a Siege the Army encamp with their Rear to the Place. *Flying-Camp* is the Ground on which a *flying Army* are encamped.

CANNON is a Piece of Ordnance of Brass or Iron, of several Kinds and Dimensions from a *Cannon Royal* or *Cannon* of eight, which carries a Ball of 63 Pound, to a *Base*, which is the lowest Class of Cannon. Those most used in the Army or Navy, are (1.) *Demi-Cannon* ; for the *Cannon Royal* and *Bastard Cannon* are too large. It carries a Ball of 32-Pound

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32-Pound, and is used in the lower Tire of a First Rate Man of War. (2.) *Twenty four Pounders*. (3.) *Culverins* carrying 18 Pound. (4.) *Twelve Pounders*. (5.) *Demmi-Culverins*, carrying nine Pound Ball. (6.) *Six Pounders*. (7.) *Sakers* carrying five and a Quarter Pound Ball. (8.) *Minions* of 4 Pound, and (9.) *Three Pounders*, which are the lowest Nature of Guns used in the Field or Navy: Guns longer than ordinary, are called *Slings*, *Drakes*, &c. as those shorter are called *Cuts*. The length of a true fortify'd Gun, is about seven Diameters of the Metal at the Vent; the Diameter of the Metal there being three Diameters of the Bore; so that a 24-Pounder being 6 Inches in Diameter of her Bore, the Thickness of the Metal at the Vent must be a Foot and a half, and her Length 13 Foot and a half.

CAPITULATIONS are the Articles agreed upon between the Besieged and the Besiegers, for surrendering a Place. The *Chamade* being beat, all Hostilities cease, and the Officer who com-

C A P

mands in the Trenches, goes upon the Breach to hear the Enemy's Proposals. If they desire a Capitulation, the Governor sends Deputies to the General to treat, if the Capitulation be agreed to and signed, Hostages are delivered on both Sides, for the exact Performance of the Articles; part of the Place is delivered to the Besiegers, and a Day appointed for the Garrison to evacuate the Place. The usual and most honourable Conditions are, to march out at the Breach, with Arms and Baggage, Drums beating, Colours flying, Match lighted at both Ends, Ball in Mouth, with some Pieces of Cannon and Waggon, and Convoys for their Baggage, and for the Sick and Wounded.

CAPONIERE is a Work sunk on the Glacis of a Place, about four or five Feet deep: the Earth that comes out of it serves to form a Parapet of two or three Foot in Height, made with Loop-Holes, or small Embrasures; it is covered with strong Planks, on which are laid Clays or Hurdles, which support

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support the Earth that covers all; it holds about 15 or 20 Men, who fire through these Embrasures on the Besiegers; the Clays are made sometimes in the bottom of a dry Moat.

CAPTAIN in Field Regiment is he who commands a Troop or Company; he ought to be vigilant to keep his Company full of young lusty Soldiers, to know their Names, Dispositions, and Qualifications; to visit their Tents and Lodgings, to see what is wanting to pay them well. He has Power in his own Company of making Sergeants, Corporals and Lancepikes; he marches at the head of his Company, and ranks according to the Seniority of his Commission.

Captain-Lieutenant, is he who commands the *Colonel's* Troop or Company.

CARABINE is a Fire Arm, shorter than a Firelock, and it carries a Ball of 24 in the Pound; they are carried by the Light Horse, hanging at a Belt over the left Shoulder.

CARABINEERS are Regiments of Light

C A R

Horse, carrying longer Carabines than the others, and are used sometimes on Foot.

CAR CASS, is an Invention of an oval Form made of Iron Ribs, and filled with a Composition of Meal-Powder, Saltpetre, Sulphur, broken Glass, Shavings of Horn, Pitch, Turpentine, Tallow, and Linseed Oil, and then covered with a pitch'd Cloth; is primed with Meal-Powder and Quickmatch, and fired out of a Mortar; its Design is to set Houses on Fire. It is lifted into the Mortar, by two small Cords fixed to its Sides. There is another sort for the Sea Service, which differs nothing from a Bomb, except its being filled with a Composition as before, and having five Holes all primed with Powder and Quickmatch, which takes Fire from the Flash of the Mortar and having fired the Composition, it burns violently from those Holes.

CARTOUCH is a Case of Wood about three Inches thick at bottom, girt round with Marlin, holding about 400 Musquet Balls, besides
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six or eight Balls of Iron of a Pound weight; 'tis fired out of a Hobit, a small sort of Mortar, and is very proper for defending a Pass. A new sort has since been made, much better than the former, of a globular Form, and filled with Ball of a Pound Weight; others were then made for the Guns, being of Ball of half or quarter Pound Weight, according to the Nature of the Gun, tied in form of a Bunch of Grapes on a Tompion of Wood, and coated over; these were made in the room of the Partridge Shot formerly used, and exceed them every far.

CARTRIDGE is a Case of Pastboard or Parchment, containing the exact Charge of a Fire Arm; those for Musquets, Carabines or Pistols, hold both the Powder and Ball for the Charge.

Cartridge-Box is a Case of Wood, or turn'd Iron covered with Leather, holding a dozen Musquet Cartridges; it is wore upon a Belt, and hangs a little higher than the right Pocket-Hole.

CASCABEL, is the Knob of Metal behind the Breech

of a Cannon; the Diameter of it is the Diameter of the Bore of the Piece; the Neck of the Cascabel, is what joins it to the Breech Mouldings.

CAVALIER is a great Mass of Earth of different Shapes, some round, and others long Squares, usually situated in the Gorge of a Bastion. (Those raised on the Curtin, are rather *Platforms*) They are bordered with a Parapet cut into Embrasures for four, six or eight Cannon, according to the Capacity of the Cavalier: They are a double Defence for the Faces of the opposite Bastion; they defend the Foss, break the Besiegers Galleries, command the Traverses in dry Moats, scower the salient Angle of the Counterscarp, where the Besiegers have their Counter-Batteries, and enfilade the Enemies Trenches, or oblige them to multiply their Parallels; they are likewise of great Use in defending the Breach and Retrenchments of the Besieged, and may greatly incommode the Retrenchments made by the Enemy, when lodged in the Bastion.

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CAVALRY are the Regiments of Horse that serve in the Army, and are divided into Brigades, as the Infantry, and encamp on the Wings of the Army.

CAVIN is a natural Hollow, fit to lodge a Body of Troops: If there happen to be any near a Place besieged, they are of great Use to the Besiegers; for they enable them to open the Trenches, make Places of Arms, or keep Guards of Horse, without being in Danger of the Enemies Shot.

CAZEMATE is a retired Platform in the Flank of a Bastion, for the Defence of the Moat and Face of the opposite Bastion; there are sometimes three such Platforms behind one another, the uppermost of which is on the Terre Plain of the Bastion, which gives the Denomination of *Places Bases*, or *low Places* to the other two. They are covered from the Enemies Batteries by a Work of Earth added to the Angle of the Shoulder, of a circular, or sometimes of a square Form, called *Shoulder*, *Oreillon*, or *Epaulment*.

C H A

CAZERNS or *Baracks* are Lodgings built in Garrison Towns for the Garrison near the Rampart, or in the waste Places of the Town.

CENTRE is the middle Point of the Circle; *Centre of a Battalion*, are the Pikes; *Centre of an Army*, is the Infantry.

CENTINEL is a private Man in a Company of Foot, armed with a Sword, Firelock, Bagonet, Bandoleers, and Cartridge-Box.

CESSATION of *Arms*, is when a Governour of a Place besieged, finding himself reduced to such an Extremity, that he must either surrender or sacrifice himself, his Garrison, and the Inhabitants, to the Enemy's Mercy, plants a *White Flag* on the Breach, or beats the *Chamade* to capitulate, at which both Parties cease all Acts of Hostility; till the Proposals be either agreed to or rejected.

Chain-Shot, see *Shot*.

CHAMADE is a Signal made by Beat of Drum for a Conference with the Enemy, when any thing is to be proposed.

C H A

CHAMBER *of a Mortar*, is that part of the *Chace* where the Powder lies, and is much narrower than the rest of the Cylinder; it is of different Forms; some are like a reversed Cone or Sugar-Loaf, others Globular with a Neck for its Communication with the Cylinder, and are called *Bottled Chambers*, but the most ordinary are in form of a Cylinder. *The Powder-Chamber* or *Bomb Chamber* on a Battery is a Place sunk under Ground for holding the Powder or the Bombs, where they may be out of Danger, and preserved from Rain.

Chamber of a Mine, is the Place in which the Powder is confined, and is generally of a cubical Form, see *Mine*.

CHANDELEER is a wooden Frame of large Planks 6 or 7 Foot asunder but parallel; on each of which is raised two Pieces of Wood perpendicularly, between which are laid Fascines, which form a Parapet; they are made to move from Place to Place as occasion requires, and serve to cover the Work-men.

C H E

CHARGD-CYLINDER, is that part of the *Chace* of a Gun, where the Powder and Ball are contain'd.

CHAUSSE-TRAPES, see *Crow Feet*. (see the *Plates*.)

Cheeks of a Mortar, or *Bracket*, are made of strong Planks of Wood, of near a semi-circular Form, bound with thick Iron *Plates*, and are fixed to the Bed by four *Bolts*, called *Bed-Bolts*; they rise on each side of the Mortar, and serve to keep it at any given Elevation, by the help of strong *Bolts* of Iron, which go through both *Cheeks*, under and behind the *Mortar*, between which are drove *Coins* of Wood; these *Bolts* are called the *Bracket-Bolts*, and the *Bolts* which are put one in each End of the Bed, are the *Traverse Bolts*, because with Hand Spikes the Mortar is traversed by these to the Right or Left.

CHEVAUX DE FRISE, or *Turn-Pikes*, are Spars of Wood about a foot Diameter, and ten or twelve long, cut into six *Faces*, and bored through; each Hole is arm'd with a short Spike shod with Iron at each End, about an Inch

Inch Diameter, 6 Foot long, and 6 Inches from one another; so that it points out every way, and is proper for stopping small *Overtures*, or to be placed in Breaches; they are likewise a very good Defence against the Horse. (see the *Plate*.)

CHEVRETTE; among the many Inventions for raising of *Guns* or *Mortars* into their *Carriages*, this Engine is very useful; it is made of two Pieces of Wood about four Foot long, standing upright upon a third, which is square; they are about a Foot asunder, and parallel; and are pierced with Holes exactly opposite to one another, having a Bolt of Iron, which being put thro' these Holes higher or lower at Pleasure, serves with a Hand-Spike, which takes its Poise over this Bolt, to raise any thing by Force.

Arch of a Circle is an undetermined part of the Circumference of a *Circle*, being sometimes larger, and sometimes smaller.

CIRCUMVALLATION is a Trench with a Parapet form'd by the Besiegers round their *Camp*, when

they are apprehensive of the Enemy's attempting to relieve the Place, or raise the Siege. The Engineers having made a Plan of the Country about, and agreed which way to run their Line to the best advantage, always avoiding the Foot of rising Grounds, which the Enemy being Masters of, may command within the Trenches; they mark it out with Picquets and Ropes, making the Foss about 12 Foot wide, and the Base of the Parapet eight, the inside height of the Parapet side being six Foot, and the outside 5, with a Banquet of three Foot wide, and one and a half high. The *Lines of Contravallation* ought to have the same height and breadth, and both the one and the other should be strengthened with Forts and Redoubts, and well flanked.

CITTADEL is a Place fortified with 4, 5, or 6 *Bastions* commanding a Town; its being fortified with *Bastions*, distinguishes it from a *Castle*, which hath only round or square Towers. They are sometimes built half

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half within and half without the Rampart of the Town, to the End the Governor of the *Citadel* may be Master of an Entry into the Town, and likewise to the Country, without depending on the Inhabitants. Others are built without the Town, but for pressing Reasons, such as keeping Possession of a high Ground, which the Besiegers might use, either to batter the Town, cover their Camp, or preserve Marshes or Springs of Water, which may be useful to the Inhabitants, because their chief Design is to keep the Inhabitants in Subjection, and to hinder their corresponding with the Enemy, which cannot be done, if built at a Distance from the Town.

CLAYES, see *Hurdles*.

CLOY Guns. see to *Nail*.

COFFER is a Work sunk in the Bottom of a dry Moat, about six or seven Foot wide, the Length of it being from one Side of the Moat to the other, with a Parapet of about two Foot high, full of Loopholes, covered over-head with Joysls, Hurdles and Earth; they serve to fire on the Besiegers,

C O L

when they endeavour to pass the Moat, and differ from the Caponiere, because it is longer; for the Caponiere takes not the whole Breadth of the Moat; it differs likewise from the Traverse and the Gallery, because it is made by the Besieged, and these by the Besiegers.

COLONEL, is the *Commander in Chief* of a Regiment, whether Horse, Foot or Dragoons, he may lay an Officer of his Regiment in Arrest, but must acquaint the *General* with it. A *Colonel* is not allowed a Guard, but only a Century from the Quarter Guard.

COLOURS are large silk Flags fix'd on half Pikes, and carried by the Ensigns: When a Battalion is encamped, they are struck before its Front, but if the Battalion be in Garrison, they are lodged with the *Colonel* or commanding Officer; they are never carried on Detachments, nor with the Battalion when it mounts the Trenches. *Field Colours* are small Flags, about a Foot and a half square, carried with the *Quarter-Master-General*,

General, for marking out the Ground for the Squadrons and Battalions.

Colour-Guard, see *Guard*.

COLUMN of an Army on a March, is a long row of Troops or Baggage following one another; the first and second Lines of the Army, as they are encamped, makes generally two Columns on a March, filing off either from the Right or Left; sometimes the Army marches in four, six or eight Columns, as the Ground will allow, and each Column is led by a General Officer.

COMMANDING Ground is a rising Ground, overlooking a Post.

COMMISSARY of the *Musters*, is an Officer appointed to muster the Army as often as the *General* pleases, to know the Strength of each Regiment, and Company, to receive and inspect the Muster Rolls; and to keep an exact State of the Army's Strength.

Commissary of Stores, is an Officer in the Artillery, who has the Charge of all the Stores, for which he is accountable to the Officer of Ordnance; he is allowed

an Assistant, *Clerks* and *Conductors* under him.

Commissary of Horses, is an Officer in the Artillery, who has the Inspection of the Artillery Horses, sees them mustered, and sends such Orders as he received from the commanding Officer of the Artillery, by some of the *Conductors* of Horses, of which he has as a certain Number for his Assistants.

Commissary of Provisions, is he who has the Inspection of the Bread and Provisions of the Army.

COMMUNICATION, *Lines of Communication* are Trenches made to preserve a safe Correspondence betwixt two Forts or Posts, or at a Siege betwixt two Approaches, that they may relieve one another upon occasion, it is the same with *Boyaux*.

Bridge of Communication, see *Bridge*.

COMPANY is a small Body of Foot commanded by a *Captain*, who has under him a *Lieutenant* and *Ensign*; it usually consists of 50 *Centinel*s, 3 *Serjeants*, 3 *Corporals*, and 2 *Drums*. A *Company*

pany in the Guards is of 80 private Men. A Battalion of Foot consists of 13 *Companies*, one of which is always Grenadiers: The Eldest *Company* take their Post next the Grenadiers, who have always the Right of the Battalion, and the second *Company* of the Left; the youngest has its Post always in the Center.

COMPLEMENT of a *Curtin*, is that part of it which makes the Demigorge.

Complement of the Line of Defence is the remainder of the *Line of Defence*, after the Angle of the Flank is taken off.

COMPTROLLER of the *Artillery*, inspects the *Musters* of the *Artillery*, makes the *Pay-List*, takes the *Accompts* and *Remains* of *Stores*, and is accountable to the Office of Ordnance.

CONDUCTORS are assistants to the Commissary of the *Stores*, to receive or deliver out *Stores* to the *Army*, to attend the *Magazines* by Turns, when in *Garrison*, and to look after the *Ammunition Waggon*s in the *Field*; they bring their *Accounts* every Night

to the Commissary, and are immediately under his Command.

CONTRAVALLATION, a *Trench* with a *Parapet*, to cover the *Besiegers* themselves with, next the *Place* besieged, to defend them from the *Sallies* of the *Garrison*, so that the *Army* forming a *Siege*, lies betwixt the *Lines of Circumvallation* and *Contravallation*; when the *Enemy* has no *Army* in the *Field*, there is no occasion for the *Lines of Circumvallation*; and when the *Garrison* is weak, the *Lines of Contravallation* are seldom used.

CONTRIBUTION, *Imposition* or *Tax* paid by *Frontier Countries*, to redeem themselves from being plundered and destroyed by the *Enemy*.

CONVERSION is a *Military Motion*, which turns the *Front* of a *Battalion* where the *Flank* was if the *Battalion* be attacked in the *Flank*.

CONVOY is a *Supply* of *Men*, *Money*, *Ammunition* or *Provisions*, convey'd into a *Town*, or to an *Army*. The *Body* of *Men* likewise, who

who guard this Supply, are called a *Convoy*.

CORDON is a Stone jutting out betwixt the Rampart and the Basis of the Parapet, it runs quite round the Fortification.

CORIDOR, a *French* Word for *Covert-Way*.

CORNET, is the third *Commission Officer* in a Troop of Horse or Dragoons; he commands in the *Lieutenant's* absence; his principal Duty is to carry the Standard near the middle of the first Rank of the Squadron.

CORPORAL, an *inferior Officer* of Foot under a *Serjeant*; he receives the Word from the Rounds that pass by the Grand Guard; and from such as are stopt by his *Centeries*; and when the Guard is relieved, gives the Orders to the *Corporal* who is to mount, and shows him all the Posts; he carries a *Fusée*.

CORPS DE GARDE, see *Guard*.

COVERT WAY, a Tract of ground level with the Field, about 3 or 4 Fathoms wide, covered by a *Parapet*, which is car-

ried round the Place; this Parapet slopes insensibly towards the *Campaign*, and the *Talus* or Sloping, is called the *Glacis*, which the Besiegers are generally obliged to sap through, to make a Lodgment. The Parapet of the *Covert Way* is about six Foot high, with a Banquet, and forms a *Saliant Angle*, before the *Curtin*, which serves for a Place of Arms.

COUNCIL OF WAR, is when the General of an Army calls together his *Lieutenant & Major Generals* for their Advice upon some Affair of Importance: he hears all their Reasons, and determines by Majority of Votes.

COUNTER-APPROACHES, Lines & Trenches made by the Besieged, when they come to attack the Works of the Besiegers, or prevent their Approaches. *Counter Battery* is a Battery raised to play upon another, to dismount the Guns.

Counter-Guard is a Work raised before the Point of a Bastion, composed of two

D long

long Faces, parallel to the Faces of the Bastion, making a Salient Angle; they are sometimes of other Shapes, and Situations.

Counter-March, is an Army's sudden Marching contrary way; and may be caused by the Enemy's endeavouring to get betwixt them and their Garrisons, or may be done to disappoint and amuse the Enemy. A Battalion is said to counter-march, when being charged in the Rear, they change the Front by marching those which are in the Front, or the *File-Leaders* to the Rear, in the Place of the *Bringers up*. Ranks are said to Counter-march, when the Wings of a Battalion interchange Ground.

Counter-mine is used when the Besiegers have passed the Foss, and put the Miner to the Foot of the Rampart: They are of two Kinds, being either made when the Bastion is raised, or afterwards, when it is attacked. The former are carried quite round the Faces of a Bastion; their Height is from 4 to 5 Foot,

and broad enough for a Man to pass easily. The others are Pits sunk deep in the Ground where the Miner is supposed to be, from whence they run out Branches in search of the Enemy's Mine, to frustrate the Effects of it, by either taking away the Powder, or cutting the Train.

Counter/scarp is properly the exterior Talus or Slope of the Ditch, but it is often taken for the *Covert Way* and the *Glacis*. The Enemy in this Sense are said to have attacked the Counter-scarp, or lodged themselves on the Counter-scarp.

Counter-Trenches, see *Counter-Approaches*.

COURT-MARTIAL is called by a *General* to try Offenders; it is composed of a *President* named by the *General*, and of 12 Members, and a *Judge Advocate*, who take an Oath to render Justice to the best of their Knowledge; the Sentence after being approved by the *General*, is Executed by the *Provost-Marshal* of the Army.

C R O

COINS are Wedges of Wood used under the Brech of a Gun, by which a *Gunner* raises or falls the Muzzle of his Piece, till he points it exactly at the Object : Each Gun has three Coins.

CRAB, see *Gin*.

CRIC, see *Jack*.

CROATS, A Regiment in *France* so called, because originally composed of *Croations*. They are commanded upon all desperate Service.

CROWN-WORK, is an Out-Work that takes up the most Ground, and is made with a very large Gorge, generally the Length of the Curtin of the Place, and two long Sides, terminating toward the Country, in two Demi-bastions, each of which is joined by a particular Curtin, to a whole Bastion, which is the Head of the Work ; these Works are always raised to inclose a rising Ground, or cover the Head of a Retrenchment.

CROW-FEET, *Chausse-Traps*, or *Caltrops*, are Iron Machines, having four Points, about 3 or 4

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Inches long, so made that which ever way fall, there is still a Point up ; they are to be thrown upon Breaches, or in Passes where Cavalry are to march, to whom they are very troublesome, by running into the Horses Feet and laming them.

CUIRASSIERS are Cavalry armed with Back, Breast, and Head-Piece, as most of the *Germans* are ; we have had no *Cuirassiers* in the *English* Army, since the last Revolution.

CULVERIN is a Cannon about 5 Inches and a quarter Diamiter in the Bore, and from 9 to 12 Foot long, carrying a Ball of 18 Pound ; it is a good battering Gun, but is too heavy for a Field-Piece.

CURTIN is that part of the Rampart of a Place which is betwixt the Flanks of two Bastions, and is the best defended of any part of the Rampart, wherefore Besiegers never make their Attacks on the Curtins, but on the Faces of the Bastion, because of their being defended

DEC

ded but by one Flank.

CUNNETTE or *Cuvette*, is a deep Trench about three or four Fathom wide, sunk along the middle of a dry Moat, to make the Passage more difficult to the Enemy; it is generally sunk so deep, till they find Water to fill it, and is good to prevent the Besiegers Mining.

CYLINDER or *Chase* of a Gun, is the Bore or Concavity of a Piece, whereof that part which receives the Powder and Ball, is called the *Charged Cylinder*, and that which remains empty after the Gun is charged, is called the *Vacant Cylinder*.

D

DECAGON is a Figure of ten Sides or Polygons, forming ten angles, each of which may be fortify'd with a Bastion.

DEFENCE of a Place. All those parts of a Fortification, which flank and defend the rest, as the Flanks, Cazemates, Parapets, and Faussebrays. The Face of a Bastion, tho' the simplest Defence of any, yet it cannot be stormed,

DEF

till the opposite Flank be ruined.

Defence, Line of Defence, see *Line*.

DEFILE is a narrow Pass, where Troops cannot march, but by making a small Front, and must therefore file off, which gives an enemy an advantageous Opportunity of either attacking the Front or Rear, since the Straitness of the Passage prevents them from relieving one another.

To Defile, is to reduce an Army to a small Front, to march through such a narrow Passage.

DEMIBASTION, see *Bastion*.

Demi-Cannon is a Gun carrying a Ball of 32 pound weight, the Diameter of its Bore is 6 Inches and a half, and its Length from 12 to 14 Foot.

Demi-Culverin is a Cannon of about 9 Foot long, the Diameter of the Bore is 4 Inches and a Quarter, carrying a Ball of 9 Pound weight; it is a very good Field Piece, takes 13 Horse to draw it, and two Gunners and 4 Matrosses to serve it.

Demi-

DES

Demi-Gorge is that part of the Polygon which remains after the Flank is raised, and goes from the Curtin to the Angle of the Polygon; it is half of the vacant Space or Entrance into a Bastion.

DESCENT into a Moat is a deep Trench or Sap through the Esplanade, and under the Covert way, covered over head with *Planks* and *Hurdles*, and Earth against Artificial Fires, to secure the Descent, which in Ditches that are full of Water, is made to the Brink of the Water, but in dry Moats the Sap is carried to the bottom of the Moat, where Traverses are made to lodge and cover the Besiegers, or secure the Miner.

Detachment, a Number of Men drawn out of one or more greater Bodies, to be employed as the *General* pleases, whether on an Attack at a Siege, or in Parties, to scowr the Country.

DISMOUNT the Enemy's Cannon, is to break their Carriages, their Wheels, Axletrees, or any thing else, so as to render them useless.

DIS

Dismount, is likewise a Command to the *Dragoons* to alight or unhorse.

DISPART of a Gun, is the Difference in the thickness of Metal between the *Base* and *Muzzle-Ring*, and is found thus; take with a pair of *Caliber Compasses*, the Diameter of these two Rings; suppose of an *English Demiculvrin*, the Diameter of the Base may be about 14 Inches, and that of the Muzzle about 11; the Difference then is three, half of which is one and a half, which is the difference of the Thickness of Metal at these two Places: The *Dispart* is a piece of Stick of this Length, set on the *Muzzle Ring*, which makes a visual Ray or Line drawn from the *Base Ring* to the top of the Stick, an exact Parallel to the *Axis* of the *Concave Cylinder*, or to the Soul of the Piece, and serves to direct the Gunner's Eye in levelling his Gun at an Object.

DIVISIONS of a *Battalion* are the several Parcels into which a *Battalion* is

D O U

is divided in marching; the *Lieutenants* and *Ensigns* march before the *Divisions*.

The Divisions of an Army, are the *Brigades*.

DODECAGON is a Figure that has twelve Sides, and as many *Angles* capable of being fortified with the same Number of *Bastions*.

DONJOHN is a Place of Retreat, to capitulate with more Advantage, in case of Necessity.

DOUBLE-TENAILLE, see *Tenaille*.

To Double, is to put two Ranks or two Files into one; *doubling of the Ranks*, is, when the second, fourth, and sixth *Ranks* march in to the first, third and fifth; so that the six *Ranks* are reduced to three, and the *Intervals* betwixt the *Ranks* become double what they were before; but, *to double by half Files*, is when the fourth, fifth and sixth *Ranks* march up to double the first, second and third, or the contrary. *To double the Files to the Right*, is when every other *File* faces to the Right and marches into the next *File* to it;

D R A

so that the six *Ranks* are turned into 12, and each *File* is 12 deep. *To double the Files to the Left*, is when every other *File* faces to the Left, and marches into the next; in doubling the *Files* the Distance betwixt the *Files* becomes double.

DRAGOONS, Musqueteers mounted, who serve sometimes on Foot, and sometimes on Horseback, as Occasion requires: They are divided into *Brigades* as the *Cavalry*, and each Regiment into *Troops*, each Troop having a *Captain*, *Lieutenant*, *Cornet*, *Quarter-Master*, two *Sergeants*, and three *Corporals*, and two *Drums*; some Regiments have *Hautboys*; in a Battle or upon Attacks they are commonly the *Forlorn Hope*, being the first that fall on. They encamp generally on the Wings of the Army, or at the Passes leading to the camp, & sometimes they cover the *General's Quarters*; they do Duty on the *Generals* of Horse and Dragoons, and march in the Front and Rear of the Army. They have
Cornets

D R U

Cornets like the Horse, and Serjeants like the Foot, but are look'd upon as Foot.

DRAW-BRIDGE, see *Bridge*.

DRUM, is beat as the several Occasions require : *As to beat the General*, is a Signal for the Army to make ready to march ; *The Assembly* is the next Beat, which is an Order for the Soldiers to repair to their *Colours* ; and the *March*, is to command them to move. *To beat the Retreat*, is for the Army to keep to their Tents, and not to fire till next morning, for fear of alarming the Camp ; this is about Sun-set, at the firing of a Gun called the *Warning Piece*, after which the *Centries* challenge, and the *Picquet Guard* is relieved. *The Reveille* is beat at break of Day, to warn the Soldiers to rise, and the *Centries* to forbear challenging. *The Alarm* is to call the Soldiers to Arms, on notice of some sudden Danger. *To beat a Parley* or *Chamade*, is to desire a Conference with the Enemy. *To beat a Call*,

D U T

is to advertise the Soldiers to stand to their Arms, when a *General Officer* is passing by.

DUTY, is the exercise of those Functions that belong to a Soldier ; with this Distinction, that *Mounting Guards*, and the like, where there is not an Enemy directly to be engaged, is called *Duty* ; but their marching to meet and fight an Enemy, is called *Going upon Service*.

E

ECHARPE, *To batter en Echarpe*, is to batter obliquently or side-ways.

Embrasures, are the Cuts made through the Parapet of a *Battery* for the Muzzles of the Guns, and for the Passage of the Shot. When a *Battery* is brought on the *Glacis* of a Place, there are thick Planks of Wood Musquet-proof, to stop the *Embrasures*, as soon as the Gun is fired, to save the *Gunners* and *Matrosses* that are employed about the Guns, from the small Shot, which plays continually upon them from the Besieged. See *Battery*.

EM-

E N G

EMPATEMENT,
see *Talus*.

ENCIENTE is the Wall or Rampart which surrounds a Place, sometimes composed of *Bastions* and *Curtins*, either faced with Brick or Stone, or only made of Earth. The *Enciente* is sometimes only flanked by round or square Towers, which is called a *Roman Wall*.

ENFANS-PERDUS,
see *Forlorn Hope*.

ENFILADE; to *Enfilade*, is to be Masters of a Ground from whence a Post or an Enemy is flanked, so that it may be battered all along a Right Line. In conducting the *Approaches* at a Siege, Care must be had that they be not enfiladed from any Work of the Place, but that they be carried on with Windings and Turnings, till they are brought to the *Glacis*, and then they are carried straight forwards, being sunk deep in the Ground, and covered over-head.

ENGINE, is a *Figure* or *Polygon* of nine Sides, and as many *Angles*, each capable of being fortified

E N S

with a *Bastion*.

ENSIGN, is the Officer who carries the *Colours*, and is the lowest commission'd Officer in a *Company* of *Foot*, subordinate to the *Captain* and *Lieutenant*; he is to carry the *Colours* both in Assault, or Day of Battle, and should not quit them but with his Life.

ENVELOPE is a Work of Earth raised sometimes in the *Ditch* of a Place, sometimes in the form of a simple *Parapet*, and at other Times like a small *Rampart* with a *Parapet*. *Envelopes* are often made to inclose a weak Ground, when it is to be done with simple Lines, to shun the great Charge of *Hornworks*, *Tenails*, or the like, or when they have not Ground for such large Works. Some give the Names of *Sillon*, *Counter-Guard*, and *Conserve*, to such *Envelopes* as are made in the Moat; sometimes they are called *Lunettes*. See *Lunette* and *Sillon*.

EPAULE, or *Shoulder* of a *Bastion*, is the Place where the *Face* and *Flank* meet,

E P T

meet, and form the *Angle*, called the *Angle of the Shoulder*.

EPAULMENT is a Work raised either of Earth, *Gabions* or *Fascines*, loaded with Earth to cover Side Ways. The *Epaulments* of the Places of *Arms* for the *Cavalry* at the Entering of the *Trenches*, are generally of *Fascines* mixed with Earth.

Epaulment, or *Square Orillon*, is a Mass of Earth, near a square Figure, faced with a Wall to cover the Cannon of a *Cazemate*.

EPTAGON, or *Heptagon*, is a Figure of seven *Sides* and seven *Angles*, capable of being fortified with seven *Bastions*.

ESPLANADE, is the sloping of the *Parapet* of the *Covert-Way* towards the *Campaign*; it is the same with *Glacis*, but begins to be antiquated, and is more properly the empty Space betwixt the *Glacis* of a *Citadel*, and the first Houses of a Town.

ESTOILE, see *Star-Redoubt*.

ETAPPE, an Allowance of Provisions and For-

E X A

rage to an Army in their March through a Kingdom, to or from Winter Quarters.

ETAPPIER, that contracts with a Country or Territory for furnishing *Troops* in their March with Provisions and Forrage.

EVOLUTION, the Motion made by a Body of *Troops*, when obliged to change their Posture in order to preserve a Post, or possess another, to attack an Enemy with more Advantage, or to be in a Condition of defending themselves the better; and consists in *Doublings*, *Counter-Marches*, *Wheelings*, &c.

EXAGON, is a Figure bounded by six *Sides* or *Polygons*, making as many *Angles* capable of *Bastions*.

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FACE of a *Bastion*. The two foremost *Sides* reaching from the Flanks to the Point of the Bastion, where they meet. They are the weakest parts of a Fortification, being the least flanked. The Breach therefore is generally made there; for the opposite

E

Flank

F A C

Flank being ruined, which should defend the Passage of the Moat, the Besiegers meet with less Opposition than they could expect in attacking any other part of the Rampart which is better flanked.

Face of a Place, called also *The Tenaille*, is the *Front* comprehended between the *flanked Angles* of two neighbouring *Bastions*, containing the *Curtin*, the two *Flanks*, and the two *Faces* of the *Bastions* that look upon one another. In a Siege the Attacks are carried against both *Bastions* when the whole *Tenaille* is attacked.

Face Prolong'd, is that part of the *Line of Defence Razant*, which is betwixt the *Angle* of the *Shoulder* and the *Curtin*, or the *Line of Defence Razant*, diminished by the *Face* of the *Bastion*.

Face is likewise a Word of Command; as *Face to the Right*, is to turn upon the left Heel a Quarter round to the Right. *Face to the Left*, is to turn upon the Right Heel a Quarter round to the Left,

F A S

Face of a Gun, is the the Superfices of the Metal at the Extremity of the Muzzle of the Piece.

FAGGOTS, the *French* call them *Passe-volans*, are Men hired by Officers, whose Companies are not full, to muster, and cheat the Sovereign of so many Men's Pay.

FALCON and *Falconette*, are small Guns; the first about two inches three Quarters Diameter of the Bore, and the other two Inches; they are too small to be of Use in the Field with an Army, and are now out of Use.

FALSE Alarm, see Alarm.

False Attack, see Attack.

FANIONS, are small Flags carried along with the Baggage. See *Flags*.

FASCINES, (See the *Plate*,) are Faggots of small Wood, of about a Foot Diameter, and six Foot long, bound in the Middle, and at both Ends; they are brought by the Cavalry to the Entrance of the Trenches, from whence the Workmen

men carry them, to raise *Batteries* or other Works, to make *Chandeleers*, *E-paulments*, or to fill up the *Moat* to facilitate the Passage to the Foot of the Wall; they are likewise used in making the Sap or Descent into the Ditch, in making *Caponeers* and *Coffers*, and many other things, and being used so, are covered over with Earth or Raw Hides, to prevent their being set on Fire. They are used in fortifying a Place, especially where the Earth is bad, to bind the *Rampart*, where they are laid athwart-ways, & drove down with Stakes, with a Bed of Earth above them, the *Fascines* again and Earth again, till the *Rampart* be finished; or to keep up the Earth of the *Parapet*, and then they're laid length-ways, and drove fast with Stakes of three or four Foot long. There are shorter *Fascines* or *Bavins*, about a Foot and a half long, which being pitched over, are to be thrown upon a Gallery, or other Work of the Enemy, to set it on Fire. *Fascines* differ from *Saucis-*

sons, the former being made of small Wood, and the latter of Branches of Trees. *Fascines* are sometimes ordered to be made by the Cavalry, before a March over bad Ground, and are carried by them, each *Trooper* having one to mend the Ways.

FAUSEBRAYE, is a small *Rampart* about 3 or 4 Fathom wide, bordered with a *Parapet* and *Banquett*, the Design of it is to defend a *Foss*; they are not reckoned so useful where there is a dry Moat, because the Besiegers may make better Works for the Defence of it than *Fausebrayes*, such as *Traverses*, *Sillons*, and *Coffers*. But in Places surrounded with a wet Ditch, they may be more useful, provided they be made only before the *Curtin* and *Flanks*, for lying low, they cannot be easily hurt by the Enemies Cannon, and defend the *Foss* better, because of their low Situation, than the *Rampart*, which, because of its Height, cannot so well discover the *Foss*. They

F I E

They ought never to be made before the *Faces*, especially in Places faced with Brick or Stone, because the *Breach* being generally made in the *Face*, the Ruins and Rubbish of the *Rampart* are stopped in the *Fausebraye*, which facilitates the Ascent of the *Breach*; and in Places lined with Brick or Stone, the Pieces of Stone or Brick fly among the *Soldiers* in the *Fausebraye*.

FICHANT, *Line of Defence Fichant*, see *Line*.

FIELD-OFFICERS, are those who have Command over a whole *Regiment*, such are the *Colonel*, *Lieutenant Colonel* and *Major*, but such whose Commands reach no further than a *Troop* or *Company*, are not *Field Officers*. See *Officers*.

Field-Pieces, are small *Guns* proper to be carried along with the Army into the *Field*, such as 3 *Pounders*, *Minions*, *Sakers*, 6 *Pounders*, *Demi Culverins*, and 12 *Pounders*, which, because of their smallness, are easier drawn, are a less Charge, require

F I L

lesser Quantities of Ammunition, and are easier served.

Field-Staff, is a Weapon carried by the *Gunners*, about the length of a *Halbert*, with a Spear at the end, having on each side Ears screwed on, like the Cock of a *Match-Lock*, where the *Gunners* screw in lighted Matches when they are upon Command; and then the *Field-Staffs* are said to be armed.

FILE, is the Line of *Soldiers* standing one behind another, which is the Depth of the *Battalion* or *Squadron*. The *Files* of a *Battalion* of Foot, are generally six deep, and those of a *Squadron* of Horse three. The *Files* must be straight, and parallel one to another; to double the *Files*, is to put two *Files* into one, which makes the Depth of the *Battalion* double of what it was in Number of Men. The *File Leaders* are the foremost Men in each *File*; the *Bringers up* are the last Men of each *File*, or the last Rank of the *Battalion*; the *half File*

F I R

File-Leaders, are the fourth Rank, because the fourth, fifth and sixth Ranks are called the *Rear half Files*, as the first second and third are the *Front half Files*.

To File off, is the same as *to Defile*, or to file off from a large Front to march in length. An Army is said to file off from the Right or Left, when the *Squadrons* move from the Right or Left, marching one after another, and so reducing the two *Lines* or *Ranks* of the Army to two long *Files*. A *Battalion* is said to file off, when it marches by *Divisions*, or *Sub-Divisions*.

FIRE, *Running Fire*, is when a Rank of Men drawn up, fire one after another, or when the *Lines* of an Army are drawn out to fire Victory, for which each *Squadron* and *Battalion* takes it from another, from the Right of the first Line to the Left, and then from the Left to the Right of the second Line.

Fire-Ball, is a Composition of *Meal-Powder*, *Sulphur*, *Saltpetre*, *Pitch*,

F I R

&c. about the Bigness of a *Hand Grenade* coated over with Flax, and primed with a slow Composition of a Fuze, to be thrown into the Enemies Works in the Night time, to discover where they are; or to fire Houses, Galleries, or other Blinds of the Besiegers; but they are then armed with Iron Pikes or Hooks, that they may not roll off, but stick where they are designed to have an Effect.

Fire-Lock, or *Fusil*, is a Fire Arm carried by a Foot Soldier; the Barrel of it is about three Foot eight Inches long, the Stock about four Foot and eight Inches, and the Bore is fit to receive a Bullet of Lead of an ounce Weight.

Fire-Master, is an Officer, who gives the Directions and Proportions of Ingredients for each Composition required in *Fire-works*. The chief *Fire-Master* of England, is a Post belonging to the Office of Ordnance.

Fire-Pots, are small Earthen Pots, into which is put a *Grenade* filled with Powder

der, and then the Pot is filled with fine Powder till the *Grenade* be covered, the Pot is afterwards covered with a Piece of Parchment, and two pieces of Match across lighted; this Pot being thrown by a Handle of Match where it is design'd, it breaks and fires the Powder, and burns all that is near it, and likewise fires the Powder in the *Grenade*, which ought to have no Fusee, to the End its Operation may be the quicker.

Fire-Workers, are Officers subordinate to the *Firemasters*, but command the *Bombardiers*; they receive the Orders from the *Firemaster*, and not only see them executed, but work themselves along with the *Bombardiers*; there are twenty four *Fire-Works* established in the Office of Ordnance.

FLAGS in *French Fanions*, are small Banners of Distinction stuck in the *Baggage Waggon*s of the Army, to distinguish the Baggage of one *Brigade* from another, and of one *Battalion* from another,

that they may be marshalled by the *Waggon-Master-General*, according to the Rank of their *Brigades*, where they are to keep, during the March to avoid the Confusion that otherwise would be.

FLANK, is that part of the *Rampart*, which joins the *Face* and the *Curtin*, comprehended betwixt the *Angle* of the *Curtin* and the *Angle* of the *Shoulder*, and is the principal Defence of a Place; its Use is to defend the *Curtin*, the *Flank* and *Face* of the opposite *Bastion*; to defend the Passage of the Moat, batter the *Sailiant Angles* of the *Counterscarp* and *Glacis*, from whence the Besieged generally ruin the *Flanks* with their *Artillery*, for the *Flanks* are the Parts of a *Fortification*, which the Besiegers endeavour most to ruin, in order to take away the Defence of the *Face* of the opposite *Bastion*.

Flank-Oblique, or *Second Flank*, is that part of the *Curtin* from whence the *Face* of the opposite *Bastion*

Bastion may be discovered. This appears in a Plan upon Paper, to be a good Defence, but is rejected by most *Engineers*, as no way useful for its being ruined at the beginning of a Siege, especially if it be of a sandy Earth; the second *Parapet*, which may be raised behind the former, is of no use, for it neither discovers nor defends the Face of the opposite *Bastion*, besides, it shortens the *Flank*, which is the true Defence, and the continual Fire of the Besiegers Cannon, will never suffer them to raise a second *Parapet*. This second *Flank* defends very obliquely the opposite Face, and is to be used only in a Place which is to be attacked by an Army without Cannon.

Flank retired, or *Low Flank*, is one of the *Platforms* of the *Cazemate*, and is sometimes called the *Cover'd Flank*. This is generally called the *Casemate*, when there is only one *Platform* retired towards the Capital of the *Bastion*, and covered by an *Orillon*; these retired *Flanks* are a

great Defence to the opposite *Bastion*, and to the Passage of the Moat, because the Besiegers cannot see, nor easily dismount their Guns.

Flanks of an Army, are the Troops encamped on the Right and Left. *Flanks of a Battalion*, are the Files on the Right and Left.

To Flank, is to attack and fire upon the Flank of an Enemy; it is a very common Term, and very essential in Fortification, all Works that have only their Defence right forwards are deficient, and must have each place to flank another, and be flanked reciprocally, otherwise it is not in Perfection. The *Curtin* is the strongest part of a Fortification, because it is flanked at both Ends by the *Flanks* and the *Face* having but one Defence from the opposite *Flank*, is counted the weakest.

Flanked Angle, see *Angle*.

FLYING-ARMY, see *Army*.

Flying-Bridge, see *Bridge*.
FOOT, are such as lift them-

themselves under a *Captain* to serve on Foot, and are armed with a *Sword*, *Bayonet*, *Firelock* or *Pike*, *Collar* of *Bandeles*, *Cartridge-Box*, &c. The Foot are formed into *Companies*, & according to the *Articles of War*, a *Soldier* is not to leave his *Company*, without Leave from his *Officer*, to go about his own *Business*, without being reputed a *Deferter*, and tried for his Life. These *Companies* are formed into *Regiments*, called *Regiments of Foot*.

Foot, a *Regiment* is said to be on the same Foot with another, when it has the same Number of Men, and the same Pay.

Foot Bank, is a small Step of Earth, on which the *Soldiers* stand to fire over the *Parapet*; there are generally two, and sometimes three, but the height of the *Parapet* from the uppermost *Foot-bank*, ought always to be four Foot and a half. See *Banquet*.

FORELAND, see *Liziere*.

FORGE, is an Engine

carried along with the *Artillery* for the *Smiths*, and is a travelling *Smith's Forge*. *Forge for hot Balls*, is the Place where the Balls are made hot before they be fired off; it is built of Brick, and hath a Furnace below, over which are Bars of Iron; it is covered overhead, and the Balls laid upon the Bars till they be hot, and are taken out with long Ladles to be put into the Gun. The Materials for such *Forges* are carried along with the *Artillery*, when there is any Design of burning Magazines, or the like, with hot Ball.

FORELORN-HOPE, in *French Enfants Perdus*, are Men detached from several *Regiments*, or otherwise appointed to make the first Attack in Day of Battle, or at a Siege, to be the first in storming the *Counterscarp*, mounting the *Breach*, or the like. They are called so from the imminent Danger they are exposed to.

FORMERS are of several sorts, but the chief is for making *Cartridges* for Cannon;

Cannon ; they are round Pieces of Wood fitted to the Diameter of the Bore of a *Gun*, on which the *Paper*, *Parchment*, or *Cotton*, which is to make the *Cart-ridge*, is rolled before it be sewed.

FORRAGE, is the *Hay*, *Oats*, *Barley*, *Wheat*, *Grass*, *Fitches*, *Clover*, &c. which is cut down, and brought into the Camp by the *Troopers*, for the Subsistence of their Horses. *Dry Forrage*, is the *Hay*, *Oats* and *Straw*, which is delivered out from the *Magazines*, to the Army in *Garrison*, or when they take the Field before the *Forrage* be grown up.

FORT, is a Work invironed on all Sides with a *Moat*, *Rampart*, and *Parapet* ; the Design of it is to secure some high Ground, or the Passage of a River, to make good an Advantageous Post, to fortify the Lines and Quarters of a Siege, &c. They are of different Figures, and are made smaller and greater, as the Ground requires ; some are in the Shape of *Bastions*, some are fortified with

entire *Bastions*, others with *Demi-Bastions* ; some are raised on a Square, and others on a Pentagon. A *Fort* differs from a *Citadel*, because this last is always raised by the Orders of the Sovereign. Small Forts are made in form of a Star, having five or seven *Angles*, and are raised for the Security of the Lines of *Circumvallation*.

FORTIFICATION, the art of fortifying a town, or other place ; or of putting them in such a posture of defence, that every one of its parts defends, and is defended by some other parts, by means of ramparts, parapets, moats, and other bulwarks ; to the end, that a small number of men within, may be able to defend themselves for a considerable time against the assaults of a numerous army without ; so that the enemy, in attacking them, must of necessity suffer great loss.

Fortification is either antient or modern, regular or irregular. Antient fortification ; at first, consisted of walls or defences made of trunks, and other branches of trees, mixed with earth, to secure them against the attacks of the enemy. This was afterwards al-

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tered

tered to stone-walls, on which were raised breast-works, behind which they made use of their darts and arrows in security. Modern fortification, is that which is flanked and defended by bastions and out-works, the ramparts of which are so solid, that they cannot be beat down but by the continual fire of several batteries of cannon. Regular fortification, is that built in a regular polygon, the sides and angles of which are all equal, being commonly about a musket-shot from each other. Irregular fortification, on the contrary, is that where the sides and angles are not uniform, equidistant, or equal; which is owing to the irregularity of the ground, valleys, rivers, hills, and the like. See BASTION, &c.

The principal maxims of fortification are these: 1. That every part of the works be seen and defended by other parts, so that the enemy can lodge no where without being exposed to the fire of the place. 2. A fortress should command all places round it; and therefore all the out-works ought to be lower than the body of the place. 3. The works farthest from the center, ought always to be open to those more near. 4. No line of defence should exceed a point blank musket-shot,

which is about an hundred and twenty or an hundred and twenty-five fathoms.

5. The more acute the angle at the center is, the stronger will be the place. 6. In great places, dry trenches are preferable to those filled with water, because sallies, retreats, and succours are frequently necessary; but, in small fortresses, water-trenches that cannot be drained, are best, as standing in no need of any sallies, &c.

Different authors recommend different methods of fortification; but the principal are those of Pagan, Blondel, Vauban, and Scheiter. [*see Plate*, Fortification, according to the method of count Pagan, supposes the side A B of the external polygon, in larger fortifications, 100 perches; in the smaller, 80; and in those of middle size 90; with the corresponding faces, 30, 25, and $27\frac{1}{2}$; the perpendicular, C D, being in all of them 15. Here too the flanks G F, H E, are perpendicular to the lines of defence, A E and B F: these flanks are also covered with an orillion and threefold. L M N is the boundary of the moat, parallel to the faces A G, B H. The curtain is defended by a double ravelin, O Q P being the external one, and *a c b* the internal; the faces

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faces of the bastions being likewise defended by counter-guards *gf, ed*. This method, though received with great applause, is not without its defects. It is not only very expensive, but its threefold flanks are too close, so as to be too much exposed to bombs; the largeness of the orillons is prejudicial to the length of the flanks, and the outer rampart is too thick. Mr. Blondel's method of fortification has a great affinity with that of count Pagan, only that the lines and angles are otherwise determined. Thus by subtracting a right angle from that of the polygon, and adding 15 to a third part of the remainder, you find the quantity of the diminished angle ABE. In the greater fortifications, the side AB of the outer polygon is 100 perches, in the lesser only 85; and AB being divided into ten equal parts, seven of them give the lines of defence AF, BE. The faces of the bastions AG, BH, are equal to half those of the tenaille AD, BD. In these faces is a kind of flanking batteries Q R, to defend the faces of the ravelin *ecd*. The flanks HF, GE, are threefold, as in count Pagan's method; and in the middle of the moat is a deep trench *adb*.

Fortification, according to Vauban's method, supposes

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the outer polygon to be 100 perches in larger places, 80 in smaller ones, and 90 in those of a middle size. The faces are made $\frac{2}{7}$ of the same, the perpendicular $\frac{1}{8}$ in a square, $\frac{1}{7}$ in a pentagon, and $\frac{1}{6}$ in other polygons. He also makes the complement of the face to the line of defence, equal to the distance of the epaule; uses re-entering crooked flanks, and places a low tenaille before the curtain.

This method of fortification is much cried up by many, both as it increases the strength without much expence, and agrees very well with the maxims above laid down. Its greatest fault lies in this, that the faces lie altogether exposed to the enemy.

Vauban's new method places large bastions before small ones; the curtain being covered with a low tenaille and a double ravelin.

Fortification, according to Scheiter's method, supposes the external side AB, in large fortifications, 100 perches; in lesser ones, 80; and in those of middle size, 90. The flanks NO, PQ, are perpendicular to the lines of defence AQ, BO; which in greater fortifications are 70, in lesser 60, and in those of middle size, 65 perches: these detach the bastions from the curtain, and form a kind

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kind of inner recess behind the curtain. The angle of the bastion in a square, is 64° ; in a pentagon, 72° ; in a hexagon, 78° ; in a heptagon, 83° ; and in works of more sides, this angle is found by adding 2° for every side above the heptagon.

As to the outworks, they are much the same as in the preceding methods, only that the covert-way is double ; as is the ravel, which covers the curtain.

To lay down the plan of a regular fortification. 1. Measure exactly the circuit of the place to be fortified, at about twelve paces distance from the houses ; and dividing the whole circuit by 150 geometrical paces at least, or 180 at most, the quotient will give the number of bastions, in such a manner that their lines of defence shall not exceed the carriage of a musket-shot. 2. Inscribe in a circle a polygon with as many sides as the place is to have bastions ; and from the center A through the angle B of the polygon, draw lines at pleasure, which lines are called principals. Afterwards take $Ba = \frac{1}{8}$ of the side of the polygon, & $BF = \frac{1}{5}$; then drawing the lines of defence Fga , Fga , from each point a raise perpendiculars ; which meeting the lines of defence in the points g, g , will

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form the bastions $agFga, agF$ &c. 3. Having thus described the outward circuit of the rampart, draw lines e, e, e , parallel to the faces of the bastions Fg, Fg, Fg ; these will determine the outward circuit of the moat, which ought to be rounded before the angles of the bastions F, F . 4. To finish the plan, draw within the place lines parallel to those which form the outward circuit of the rampart, at the distance of $\frac{1}{5}$ of the flank for the parapet ; at the distance of $\frac{1}{2}$ the demigorge Ba , for the rampart ; and at the distance of five feet from the parapet, for the banquet. In the same manner, on the outside of the moat, must be drawn lines parallel to its outward circuit, at the distance of $\frac{1}{4}$ of the flank for the covered way ; and at the distance of $\frac{2}{3}$ of the flank for the glacis.

To lay down the profile of these works. Let ARR represent the level of the place ; take AB , 5 paces, for the place of arms ; the perpendicular OC , 16 feet, for the talus or slope ; the thickness of the lower part of the rampart, BR , 12 paces ; the upper part, CD , $6\frac{2}{3}$ paces ; the banquet, dD , 6 feet ; the thickness of the lower part of the parapet DV , $3\frac{1}{3}$ paces ; the upper, at E , $2\frac{1}{3}$ paces ; its inwaad height,

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height, ED, 6 feet ; and its outward height, 5 feet ; the talus of the rampart to the moat, GR, 7 feet ; the talus of the scarp, xy, 2 paces ; the depth of the moat, Rx, 16 feet ; the width of its channel, T, 15 feet ; the talus of the counterscap, aK, 10 feet ; and the banquet of the covered way, at L, 5 feet. Then follows the palisade at N, and the glacis or esplanade, M. is represented a hexagon fortified with all the kinds of outworks, together with the manner of carrying on the trenches of approach. Here is also delineated a pentagonal cittadel, with its outworks. The names of the different works and parts of this fortification, are these ; *a, a, a, &c.* represent the declivity, or slope, usually called glacis ; *b, b, b, &c.* the covert way ; *c, c, c, &c.* the counterscarp ; *d*, a single tenaille ; *e*, a double tenaille ; *f*, a horn-work ; *g, g, g, &c.* places of arms ; *h, h, h, &c.* the moat or ditch ; *i, i, i, &c.* ravelins ; *k, k, k, &c.* half moons ; *l*, a crown work ; *m*, a bonnet or priest's cap ; *n, n*, a counter guard ; *o, o, o, &c.* bastions ; *p, p, p*, bastions with circular flanks ; *q, q*, the curtain ; *r, r, r, &c.* the ramparts ; and *s, s, s, &c.* bridges over the moat, With respect to the approaches, *i, i, i, &c.* represent the tren-

FOR

ches ; *2, 2, 2, &c.* the lines of communication ; *3, 3*, batteries ; *4, 4, 4, &c.* forts for the defence of the trenches ; *5*, the descent into the covered way ; and *6*, a mine.

Irregular FORTIFICATIONS, are those raised about irregular polygons ; in which the engineer ought to follow, as much as possible, the proportions laid down for the regular ones. If bastions are found too high to sweep the circumjacent campaign, a second bastion must be added to the first, or even a third, if necessary ; still taking care that their faces be well defended. If, on the contrary, a bastion is too low, a cavalier must be raised on it. It will sometimes also happen, that the faces of bastions would become excessive long, if they were to be extended till they meet ; in which case, they are usually closed with a re-entering angle, (ibid fig. 4.) when one side of the polygon is long enough to admit of a bastion in its middle, it is remedied by raising one ; but if it will not admit of this, it may be remedied by forming a salient angle in the middle ; or by advancing the neighbouring bastions nearer to each other, so that both may be entirely formed upon that side. When a long

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long extended side of a place cannot admit of bastions, as being cut off by a river, or stands on a deep ascent, it may be fortified with redents or re-entering angles, not unlike the teeth of a saw. (*Fig. 5.*) But the defect of these redents is, that both the sides of the tenaille or front of a place, may be ruined from one battery; so that the besiegers may then make an assault without fear of being enfiladed.

Marine FORTIFICATIONS.

Though these have nothing peculiar in them, yet it may not be improper to give some directions with relation to batteries. 1. In raising batteries to hinder a descent, care should be taken to dispose them in such places where the descent is most easy; and the guns should be so levelled, as to scour the surface of the water, that they may fire effectually upon the boats as they approach. 2. It is likewise convenient to have batteries to play upon places where there is good anchorage; and these should be somewhat more elevated than the former. 3. It is also necessary to erect batteries at the entrance of roads; and these ought to be so made, as to discover ships at a distance. 4. It is very necessary that these batteries should be de-

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fended by some works, against attacks; and, if possible, should be under the fire of the place; or, at least, they ought not to be too far advanced.

FOSS, see *Moat*.

FOUCADE, *Faugade*, or *Fougasse*, is a small *Mine* under a *Post*, to blow it up when it is in danger of falling into the Enemies Hands; it is made like a Well eight or ten Foot wide, and ten or twelve deep, charged with Barrels or Sacks of Powder, upon which Pieces of Wood are laid cross ways, with Stones and Earth, and whatever else can make a great Destruction; this is fired by the help of a *Sauciss* or *Train*, which has a Communication with the *Counter-scarp*, or some other *Post*.

FOURNEAU, *Powder-Chamber*, or *Chamber of a Mine*, is a Hollow made under a Work to be blown up; the Top of it sometimes cut into several Points like Chimneys, to open more Passages for the Powder, that it may have its Effects on several Sides at the same time; and sometimes it is in form of a hollow

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low Cube, about five or six foot large: the Charge of a *Chamber* or *Fourneau* is about 1000 l. of Powder put into Sacks or Barrels, so that the *Saucifs* or *Pudding* may fire them all at once. It is left to the Judgment of the Engineer or Miner to augment or diminish the Quantity, as he thinks convenient, and to proportion it to the Nature of the Ground or Rock on which the Work is raised, which is to be blown up; for if a great deal of Powder meet with little Resistance, it makes only a Hole, by raising the Earth above it with a great Violence. Sometimes they make four or five Chambers under a Work, and put but a small Quantity of Powder in each, as 100 Pound or the like. A *Fourneau* ought not to be charged till it be ready to spring, because the Powder lying too long in the Humidity of the Earth, loses its Force. When the Powder is put into Barrels, one of the Staves must be taken out, and a Quantity of Powder scattered round; if it be in Sacks, they must be ript, and Powder strowed about, that they may fire all

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at once. The Mouth of the *Fourneau* is to be stopp'd with great Planks, and Pieces of Wood, and the Vacancy which is left, after the *Fourneau* is charged, must be filled with Stones and Pieces of Wood, and all the Turnings well stopp'd.

FRAISES are Pieces of Wood of six or seven Foot long, planted under the *Cordon*; and in Places which are faced with Stone or Brick, they are planted at the Base of a *Parapet*, being let about half way into the *Rampart*; they are not laid parallel to the Base of the *Rampart*; but a little sloaping with their Points downwards, that Men cannot stand on them; their chief use is to hinder the Garrison from deserting, which would be easy without them, especially in Places with dry Moats. They likewise prevent Surprizes and Escalades.

To fraise a Battalion, is to line it every way with *Pikes*, that it may stand the Shock of a Body of Horse.

FRONT of a *Battalion* is the first Rank, or the File-Leaders; it is likewise called the *Face* or *Head* of a *Battalion*.

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talion. *Front* of a Squadron is the first Rank of Troopers. *Front* of an Army is the first Row of Tents in the first Line, which are the *Quarter-Masters* Tents in the Horse, and the Serjeants in the Foot.

Front of a Place, is the same as the *Face of a Place*, or the *Tenaille*, being all that is contained between the *Flanked Angles* of two neighbouring *Bastions*, viz. The two *Faces*, and two *Flanks* and the *Curtin*.

FUSE, is a Pipe full of Wild-Fire, put into the Touch-hole of a Bomb, Grenado, or the like, to fire it.

FUSIL, see *Firelock*.

FUSILEERS, are Foot *Soldiers* armed with *Fusces*, with Slings to sling them.

GABIONS, or *Cannon-Baskets*, are *Baskets* 5 or 6 Foot high, and about four in Diameter at Top and Bottom; they are filled with Earth to make a *Cover* or *Parapet* against the Enemy, and are sometimes used in making *Batteries*, and are brought empty to the Place, and placed three a Breast, which makes the Distance

G A L

between the *Embrasures*; two are placed behind these, so as to cover the Joinings of the first three, and one behind the two, which make the *Embrasure* wide enough at the Outside, these six *Gabions* being the *Merlon*; the *Pioneers* or *Soldiers* employed for that Use, fill them with Earth, but they are never so good as a *Battery* raised of Earth or *Fascines*, because, if there be a *Counterbattery* to play upon them, they are easily ruined. Sometimes they are used in making *Lodgments* on a *Post*, and sometimes in making the *Parapet* of the *Approaches*, especially when the Attack is carrying on, thro' a rocky Ground. When the *Approachs* are got near the *Covert-Way*, the *Besiegers* endeavour to set the *Gabions* on fire by small *Fascines* or *Bavins* pitched over, which they throw upon them. (See the *Plate*.)

GALLERY or Passage made cross a *Moat*, is a Walk of strong Beams, covered overhead with Planks, and loaded with Earth: 'Twas formerly used for putting the *Miner* to the Foot of the *Rampart*;

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Rampart : Sometimes the Gallery is covered over with *Raw-Hides*, to defend it from the Artificial Fire of the Besieged. It ought to be eight Foot high, and ten or twelve wide; the Beam ought to be half a Foot thick, and two or three foot asunder; the Planks or Boards nailed on each Side, and filled with Earth or Planks in the Middle; the Covering to rise with a Ridge, that what is thrown upon it by the Besiegers to burn it, may roll off.

Gallery of a Mine, is the same as *Branch of a Mine*, and is a Passage under Ground of three or four Foot wide under the Works, where a *Mine* or *Countermine* is carried on. The Besieged and the Besiegers carry each of them Branches under Ground, in search of each others *Mines*, which often meet and destroy one another, or at least disappoint the Effect of the *Mine*. See *Mine*.

GARRISON *Town*, is a strong Place, in which *Troops* are quartered, and do Duty for the Security of the Place; keeping strong Guards each at *Port*, and a

G A T

Main Guard in the *Market-Place*. The *Troops* that are put into a Town, either for their Security or Subsistence in the Winter time, or are there in the Summer for the Defence of the Place, are called *the Garrison of that Town*.

G A T E. The *Gate* ought to be in the Middle of the *Curtin*, to be defended by both *Flanks*; those in the *Flank*, weaken the most necessary part of the *Fortification*, and when they are in the *Face*, they are still more prejudicial to the *Bastion*, which ought to be clear, to make *Retrenchments* upon Occasion. At the opening of the *Gates*, a Party of Horse is sent to *Patrouille* in the Country round the Place, to discover *Ambuscades* or *Lurking Parties* of the Enemy, and to see if the Country be clear. In some Garrisons the Guard mounts at the opening of the *Gates*, so that in case of a Surprise, both the Old and the New Guards being under Arms, they are in a Condition of making a good Defence. The Word nor the Orders ought never to be given,

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till after the *Gates* are shut, for fear of Spies lurking in the Town, that may carry Intelligence to the Enemy.

GAZONS, are Sods or Turfs about a Foot long, and half a Foot broad, cut in form of a Wedge, to face the *Parapet*; they are made so, that their Solidity forms a Triangle; that being mix'd with the rest of the Earth of the *Rampart*, they may easily incorporate in a Mass. The first Bed of *Gazons* is fixed with Pegs of Wood; the second Bed ought to be laid to bind the former that is over the Joints of it, and so continued till the *Rampart* be finished; betwixt these Beds they generally sow all sorts of binding Herbs to strengthen the *Rampart*.

GENS-D'ARMS, or Men of Arms, are a Body of Horse divided into Independent Troops, called so, because formerly they fought in Armour; they are part of the King of *France's* Household; these *Troops* are commanded by *Captain Lieutenants*, the King and Princes of the Blood being their *Captains*; the King's *Troop*, besides a *Captain Lieutenant*,

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has two *Sub-Lieutenants*, three *Ensigns*, and three *Guidons*. The other *Troops*, which are those of the *Scots Gendarms*, the *Queen's*, the *Dauphin's*, the *Gendarms of Anjou, Burgundy*, the *English* and *Flemish Gendarms*, and those of the Duke of *Orleans*, are called the *Small Gendarmery*, and have each a *Captain-Lieutenant*, *Sub-Lieutenant*, *Ensign*, *Guidon*, and *Quarter-Master*. They carry a *Standard* longer than the Light Horse, and divided into two Points a little rounded, generally adorned with some Device or Cypher in Embroidery and a Fringe; each *Troop* has a pair of *Kettle-Drums*, and two *Trumpets*.

GENERAL of an Army, is he who commands in chief. The Function of a *General*, is to regulate the March of the Army, and their Encampment, to visit the Posts, to command Parties for Intelligence, to give out the Orders and the Word every Night to the *Lieutenant* and *Major Generals*; in Day of Battle, he chuses the most advantageous Ground, makes the Disposition of his Army, posts the

G E N

the Artillery, sends off the Baggage to a Place of Security, and sends his Orders by his *Aid de Camps*, where there is Occasion. At a Siege, he causes the Place to be invested; he views and observes it, orders the making of the Lines of *Circumvallation* and *Contravallation*, and making the Attacks; he visits often the Works, and makes Detachments to secure his Convoys. The Charge of a *General* is of great Extent, and requires a particular Care, because it is on him the Sovereign reposes the Care of all his Army.

General of Horse, and *General of Foot*, are Posts next under the *General* of the Army. They have an absolute Command over all the Horse or Foot in an Army, upon all Occasions, above the *Lieutenant Generals*.

General of the Artillery, or *Master-General of the Ordnance*, is one of the greatest Employments in the Kingdom, being a Charge of great Trust; it is generally bestowed on one of the first Peers of the Kingdom; he has the Management of all the Ordnance of the Kingdom, and ought to know and

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consider whatever can be serviceable or useful in the *Artillery*, and to distribute the Vacancies to such as are qualified for them; and has for his Assistants in that Employ, a *Lieutenant-General*, who commands in the Absence of the *General*; a *Surveyor-General*, *Clerk*, *Store-Keeper*, and *Clerk of Deliveries*, who are called the Principal Officers of the Ordnance.

GIN or *Crab*, is an Engine for mounting *Guns* on their *Carriages*, or dismounting them.

GLACIS, signifies an easy little Slope, and is that Mass of Earth, which serves as a *Parapet* to the *Covert-Way*, which slopes easily towards the *Campaign*: The Difference betwixt *Talus* and *Glacis*, is, that in the one the Height is more than the Base of the Slope, and in the other, the Base of the Slope is more than the Height; the Breadth of the *Glacis* is generally the Length of the *Flank*, but the largest are the best; it is likewise called *Esplanade*, but that Word grows obsolete. The *Soldiers* corruptly call the Top

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of the *Glacis* the *Counter-scarp*. When the Approaches are brought to the Foot of the *Glacis*, they are so near, that they cannot turn any way, but they must be Enfiladed, therefore they are carried straight forwards by Sap, unless it be resolved to carry the *Covert Way* by Assault.

GORGE of a *Bastion*, is that Space which is taken equally on each Side of the *Angle* of the *Figure* on the Sides of the *Polygon*, which makes the Entry into the *Bastion* from the Town or Place, one half of which is called the *Demi-Gorge*. *Gorge* of a flat *Bastion*, is a right Line, which terminates the Distance between two *Flanks*. *Gorge* of a *Half Moon*, is a Distance between the two *Flanks*, taken on the *Angle* of the *Counter-scarp*. That of a *Ravelin*, is the Distance between the two sides or *Faces* towards the Place; the *Gorges* of all other Out-Works, are the Entry into them from the Place, or the Distance between their Sides, and ought to be without a *Parapet*, only plain, lest the Besiegers, being Masters of

G R E

the Work should there find a Cover from the Fire of the Place; yet they are sometimes palisaded to prevent a Surprise. In a Siege they are generally undermined, that they may be blown up before the Enemy can make a Lodgment upon them.

GOVERNOUR, is a very considerable Officer, and has a great Trust reposed in him, and ought to be very vigilant and brave. His Charge is to order the *Guards*, the *Rounds*, and the *Patrouilles*, to give every Night the Orders and the Word, after the Gates are shut, to visit the *Posts*, to see that both *Officers* and *Soldiers* do their Duties, and to send frequently Parties abroad for Intelligence, and to raise Contribution.

GRENADIER, is a Foot Soldier, armed with *Sword*, *Firelock*, *Bayonet* & a *Pouch* to hold his *Grenades*; they are cloathed differently from the rest of the *Battalion*, and wear high Caps; each *Regiment* has a *Company* of *Grenadiers*, which takes always the Right of the *Battalion*. The *Grenadiers* are generally the tallest and briskest Fellows,

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Fellows, and always the first upon Attacks : When there is any Appearance of Action, each *Grenadier* carries three *Hand Grenades*. *Horse Grenadiers*, called by the *French Grenadiers-Volans*, or *Flying-Grenadiers*, are such as are mounted on Horseback, and fight on Foot ; their Exercise is the same with the other *Grenadiers*.

GRENADÉ, is an Iron Shell filled with fine Powder, which being fired, bursts the Metal in Pieces amongst those who are near where it falls, and who are obliged to quit their Post, or run the Hazard of having their Legs and Arms broke and spoiled. The *Grenade* has a Vent to receive a *Fuse*, which is made of the same Composition with that of a *Bomb*, that the *Grenade* may not break in the Hand of the *Grenadier*, before it be delivered.

GUARD, is a Duty performed by a Body of Men, with Vigilance, to secure all from the Efforts and Surprizes of an Enemy. In a *Garrison* the *Guards* are relieved every Day, and it comes to every Soldier's Turn once in three Days ; so that they have two nights

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in Bed, and a third upon Guard.

Main-Guard, is that from whence all the other small Guards are detached ; those who are to mount the Guard, meet at the respective Captain's Quarters, and are carried from thence to the *Parade* ; where, after the whole Guard is drawn up, the small Guards are detached for the *Ports* and *Magazines*, and the subaltern *Officers* throw Lots for their Guards, and are subordinate to the Captain of the *Main-Guard*. The Guards are mounted in *Garrisons* at different Hours, according as the Governour pleases, but the most usual is at the opening of the Gates at ten a Clock, or at two in the Afternoon.

Advance-Guard, is the Party of either Horse or Foot that march before a Body, to give them Notice if any Danger appears ; when the Army is upon their March, the Grand Guards who should mount that Day, serve as an *Advance-Guard* to the Army ; if a Body of Foot be marching, their *Advance-Guard* are Foot. In small Parties, 6 or 8 Horse are sufficient. and

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and they are not to go above 4 or 500 Yards before the Party. An Advanced-Guard is likewise the small Body of 12 or 16 Horse, under a Corporal or Quarter-Master, who are posted before the Grand Guard of the Camp.

Rear-Guard, is that part of the Army which brings up the *Rear*, which is generally the old *Grand Guards* of the *Camp*. The *Rear Guard* of a Party, is 6 or 8 Horse, that march about 4 or 500 Paces behind the Party. The *Advanced Guard* going out upon Party make the *Rear Guard* in their Return.

Grand-Guard, are 3 or 4 *Squadrons* of Horse commanded by a Field Officer posted before the *Camp* on the Right and left Wing towards the Enemy, for the Security of the *Camp*; this *Guard* mounts every Morning about 7 or 8 a Clock.

Pickquet-Guard, is a certain number of Horse and Foot, who are to keep themselves in Readiness, in case of an *Alarm*; the Horse keep their Horses saddled, and are booted all the time, in order to mount in a Minute. The Foot draw up at the Head

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of the *Battalion*, at the beating of the *Tattoo*; but return to their Tents, where they hold themselves in a Readiness, to march, upon any sudden Alarm; this forms a good Body able to make a Resistance, till the *Army* can be in a Readiness.

Forrage-Guard, is a Detachment sent out to secure the Forragers, and are posted at all Places, where either the Enemy's Party may come to disturb the Forragers, or they may be dispersed too near the Enemy, and be taken; this is likewise called the *Covering Party*, and marches the Night before the Forraging, that they may be posted in the Morning before the Forragers come; they consist both of Horse and Foot, and must stay at their Post, till the Forragers be all come off the Ground.

Artillery-Guard, is a Detachment from the Army, to secure the *Artillery*; their *Corps de Garde* is in the Front, and their Centries round the Park; this is a 48 Hours Guard, and upon a March they go in the Front and Rear of the *Artillery*, and must be sure to leave nothing

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nothing behind ; if a Gun or Waggon break down, the Captain is to leave a part of his Guard to assist the Gunners and Matrosses in raising it again.

Corps de Garde, are *Soldiers* entrusted with the *Guard* of a Post under the Command of one or more Officers.

Guards ; the *Horse-Guards*, are Gentlemen chosen for their Bravery and Fidelity, to be entrusted with the Guard of the King's Person, divided into three *Troops*, called the *Troops of Guards* ; each *Troop* hath a *Colonel*, 2 *Lieutenant-Colonels*, a *Cornet*, a *Guidon*, 4 *Exons*, *Brigadeers*, and *Sub-Brigadeers*, and 160 private Men. *The Foot Guards* are *Regiments* of Foot appointed for the *Guards* of his Majesty and his Palace ; there are two *Regiments* of them, called the *First* and *Second Regiments of Guards*, the one having four *Battalions*, and the other two ; the *Regiment of Scots Guards* is likewise two *Battalions*.

GUERITE, is a small Tower of Stone or Wood, generally on the Point of a Bastion, or on the Angles of

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the Shoulder, to hold a *Centinel*, who is to take care of the Foss, and to watch to prevent Surprizes ; some call *Echaugette* those which are made of Wood, and are of a square Form, for the *Guerites* of Stone are roundish, and are built half without the Wall, and terminate at a Point below, which ought to be at the *Cordon*, that the *Centinel* may discover along the Faces, Flanks and Curtins, and all along the *Foss* : They ought to be about six Foot high, and their Breadth three and a half.

GUIDES ; *Captain of the Guides*, is an Officer appointed for providing Guides, for the Army, of which he ought to have always a sufficient number with him, who know the Country, to send out as Occasion requires ; such as are to guide the Army on a March, for Convoys, Parties, Baggage, Artillery, and Detachments ; to provide which he ought to have a Party of Horse to go to the Adjacent *Villages*, *Castles*, or *Forts*, to demand *Boors*, whom he brings to his Quarters, and keeps under

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der a Guard, lest they should escape, till the Army come to another Ground, where he can be provided with others : He ought to understand several Languages, especially that of the Country in which the Army is.

GUIDON, is a *French* Term for him that carries the *Standard* in the Guards or *Gens d' Armes*, and signifies likewise the *Standard* itself.

HALF-MOON, is an *Out-work* composed of two *Faces*, which form a *Saliant Angle*, whose *Gorge* is turned like a *Crescent* : They were used formerly for covering the Points of Bastions ; but have been found of no Use, because having only the *Ravelins* to defend them, they are but very indifferently flanked ; the *Ravelins* built before the Curtins, are now called *Half-Moons*.

HEAD of a Work, is its Front next the Enemy, and farthest from the Place ; as the *Front* of a *Horn-Work* is the Distance between the *Flanked Angles* of the *Demi-Bastions*. The Head of a *Double Tenaille* is the *Saliant Angle* in the middle and the two other Sides,

H E R

which form the Re-entring Angle.

HEPTAGON, is a Figure capable of being fortified with seven regular Bastions.

HERISSON is a *Barriere* made of one strong Beam or Plank of Wood, full of Iron Spikes, it is supported in the Middle, and turns upon a Pivot or Axis ; it is used in stopping a Passage like a Turn-Stile, for it is equally balanced upon the Pivot, standing upright in the Middle of the Passage, upon which it turns round, as there is Occasion to open or shut the Passage.

HERSES or *Portculleffes*, are strong Pieces of Wood jointed cross-ways, like a *Lattice* or *Harrow*, used formerly to hang in the Middle of a Gate-Way of fortified Towns, to be let fall to stop the Passage, in case the Gate had been broke down, or Petarded. It is either a Stop, or a Separation, if any of the Enemy have already entred ; for before it can be broke open, the besieged have time to rally and repulse them. See *Orgues*.

Herse,

Herse, is likewise an Engine like a *Harrow*, full of Iron Spikes ; and used instead of the *Chevaux de Frise* to throw in the Ways where Horse or Foot are to pass, to hinder their March, & upon Breaches to stop the Foot. Common *Harrows* are sometimes made use of, and are turned with their Points upwards.

HEXAGON, is a Figure of six Sides, capable of being fortified with six Bastions.

HOBITS, are a sort of small *Mortars*, about 8 Inches Diameter, some 7, some 6 ; they differ nothing from a *Mortar*, but in their Carriage, which is made after the Fashion of a *Gun Carriage*, but much shorter ; they march with the Guns, and are very good for incommoding an Enemy at a Distance, with small *Bombs*, which they throw two or three Miles ; or in keeping a Pass, being loaded with *Cartouches*.

HORN-WORK, is a Work which the *French* Engineers prefer before *Tenailles*, *Swallow Tails*, or *Priest-Bonnets*, because

it takes in a great deal of Ground, and has a better Defence ; it is composed of two long Sides or Faces parallel, the Distance between them being the Length of one *Curtin* ; their Length, measuring from the *Angle* of the *Shoulder*, is the Length of one Side of the *Polygon*, or of the *Curtin*, and one *Demi-Gorge*. The *Head* or *Front* of this Work is fortified with two *Demi-Bastions* and a *Curtin*. They have sometimes *Flanks* on their long Sides, and then they are called *Horn-Works* with double *Flanks*, or *Shoulders*. They have generally a *Ravelin* in their *Gorge*, and a small *Ravelin* before the *Curtin*.

Horse-Shoe, is a small round or oval Work, with a *Parapet*, made generally in a Moat or Marsh.

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INCAMP ; *To incamp*, is the pitching of *Tents*, when the Army after a March is arrived at a Place where it is designed to stay a Night, or longer ; the *Serjeants Tents* in the Foot,

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and *Quarter-Masters* of *Horse*, are the first of the *Company* or *Troop*; the *Officers* incamp in the Rear, the *Subalterns* in one Line next the *Company* fronting from it, the *Captains* in another Line at some Distance, each behind his own *Company* fronting the *Subalterns*; the *Field-Officers* behind them, the *Colonel* in the Center, the *Lieutenant Colonel* on his Right, the *Major* on his Left, and the *Sutlers* behind all. Each *Company* makes a Line in File, having an Allowance of seven Foot for a Tent, and two Foot Distance; the *Tents* of two *Companies* front one another, leaving a Street of five or six Yards between them. The *Troops* of *Horse* encamp the same Way, only the Distance between the *Tents* is about 3 or 4 Yards for the Forrage, and the Space between two *Troops*, is 14 or 15 Yards for the Stables: At two Yards Distance from the Doors of their *Tents*, is a Rope called the *Picquet Rope*, stretched upon pointed Stakes, to which their

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Horses are tied. For the Ground allowed a *Battalion* or *Squadron*. See *Camp*.

INDENTED-LINE, is a *Line* running out and in, like the Teeth of a *Saw*, forming several *Angles*, so that one Side defends another; they are used on the Banks of *Rivers*, where they enter a *Town*, likewise the *Parapet* of the *Covert-Way* is often indented. This is by the *French Engineers* called *Redents*; small Places are sometimes fortified with such a *Line*, but the Fault of such *Fortifications*, is that the *Besiegers* from one *Battery*, may ruin both the Sides of the *Tenaille* or Front of a Place, and make an *Affault*, without Fear of being enfiladed, since the *Defences* are ruined.

INDEPENDENT *Troop* or *Company*, is what is not incorporated into any *Regiment*.

INFANTRY, are the *Regiments*, or *Independent Companies* of Foot in an Army; they are formed into *Brigades*, like the *Cavalry*;

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valry; each *Brigade*, consists of 4, 5, or 6 *Battalions*; the *Regiments* of *Foot Guards* takes the Posts of all the *Infantry* in the *Army*; the other *Regiments* take Posts by Seniority; the oldest *Regiment* takes the Right of the first *Brigade*; the second takes the Right of the second *Brigade*; the third of the third, and so on. The next in Seniority take the Left of the *Brigades*, and leave the *Centers* for the youngest *Regiments*. The first *Brigade* takes the Right in the first *Line*, and the second *Brigade* the Right of the second *Line*; the third and fourth the Left of the two *Lines*, and the youngest *Brigade* in the *Center*.

INSULT, is the attacking a Post with open Force, without using *Trenches*, *Saps*, or any *Approaches*, but coming without Shelter to Blows with the *Enemy*. The *Besiegers* generally insult the *Counter-scarp*, to shun the *Enemies* *Mines*, that they may have prepared, by not giving them time to fire them. In such Attacks, the *Grena-*

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diers march before the rest of the *Troops*, and the *Work-men* go prepared to make a *Lodgment*.

INTRENCH'D; an *Army* is said to be intrenched, when they have raised Works before them, to fortify themselves against the *Enemy*, that they may not be forced to engage at a *Disadvantage*.

I N T R E N C H - M E N T S, are all sorts of Works made to fortify a Post against an *Enemy*. The Word signifies a *Foss* or *Trench*, with a *Parapet*, or Rows of *Fascines* loaded with *Earth*, *Gabions*, *Sand-Bags*, or *Hogsheads* filled with *Earth* to cover the *Men* from the *Enemies* *Fire*. A Post intrenched, is when it is covered with a *Foss* and *Parapet*. See *Retrenchment*.

INVALIDE, is a *Man* who has spent his *Time* in *Wars*, and is either, through *Age*, or by reason of his *Wounds*, render'd incapable of the *Service*. They are disposed of in *Hospitals*.

INVESTING a *Place*, is when a *General* having an *Intention* to besiege it,
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detaches a Body of Horse, to possess all the Avenues, blocking up the Garrison, and preventing Relief from getting into the Place, till the Army and the Artillery are got up to form the Siege.

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KETTLE, is a Term the Dutch give to the Battery of Mortars, because it is sunk under Ground. See Battery.

KLINKETS, are a sort of small Gates made through Palisades for Sallies.

L

LABORATORY, signifies the Place where the Fire-Works and Bombardiers prepare their Stores.

LANSPESADE, or Anspesade, is under a Corporal, and assists him in his Duty, and performs it in his Absence; they have the same Pay as a Foot Soldier, but in France they have a greater Allowance; they are excused from common Duty, they teach the new Soldiers Exercise, and post the Centries; their Place on a March is on the Right of the second Rank.

LIEUTENANT of Horse or Foot, is the se-

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cond Officer in the Troop or Company, and commands in the Absence of the Captain. When the Company is at Arms, he takes the Left of the Captain, but the Right if the Ensign be there. He marches the Company in the Absence of the Captain, but when the Captain is present, his Post is in the Rear; when the Battalion marches in Line of Battle, the Lieutenants take their Post at the Head of the Divisions, according to their Seniority. He ought to inspect the Actions of the Serjeants and Corporals, to keep them to their Duty, and take care of every thing that is necessary to the Company to see them exercise, to cause them to keep their Arms clean and fit for Service, and to see that the Soldiers be provided of Powder and Ball.

Lieutenant Colonel, is the second Officer in a Regiment, and should be a Man of great Experience; knowing how to attack or defend a Post, lead the Regiment to Battle, and how to make a good Retreat; he

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he is to see the Regiment kept to their Exercise, and is to know the Qualifications of all the Officers of the Regiment. In the Absence of the Colonel he commands the Regiment; his Post is on the Colonel's Left Hand, three Paces before the Captain's, when there is but one Battalion; but if the Regiment be of two, the Colonel commands the first, and he the second. Colonels and Lieutenant Colonels are excused from mounting the Guard when the Regiment is in Garrison.

Lieutenant Colonel of Horse, is the same; he marches at the Head of the second Squadron.

Lieutenant-General, is a Charge of great Consequence: They ought not only to understand their own, but also the Business of a *General*, because they are often intrusted with the Command of a *Flying Camp*, and sometimes with a part of the *Army*. There is every Day a *Lieutenant General* upon Command, who is called the *Lieuten. Gen. of the Day*. In the Day of Battle, they com-

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mand the *Wings* of the *Army*; and at a Siege, they command in the *Trenches* by turns. They are to execute the *General's* Orders upon all Occasions: Some are appointed over the Cavalry, others for the Infantry; sometimes on the *Advance-Guard*, others on the *Rear-Guard*, and sometimes they command a *Flying-Army*. They ought to be daily with the *General* to know his Orders; they are allowed each two *Aid de Camps*, and a Foot Guard mounted by a *Subaltern*, with a *Serjeant* and 30 Men.

LIGHT-HORSE; all the Regiments of Horse, except the Guards, are called the Light-Horse; each Regiment consists of six Troops, and is commanded by a *Colonel*, *Lieutenant*, *Colonel*, *Major*, *Captains*, *Lieutenants*, *Cornets*, and *Quarter-Masters*; they rank according to Seniority.

Line in Fortification, is sometimes applied to a Trench. To run a Line, is to dig a Trench with a Parapet; to line a Work, is to

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to trace it out ; to line a Work, is likewise to face it with Brick or Stone. Lines are sometimes made to cover a Country.

Line of Defence, is a supposed *Line* drawn from the *Angle* of the Curtin, or any other Point of it, to the Flanked Angle of the opposite Bastion ; or it is a Line representing the Flight of a Musquit Ball from the Place where the Musqueteers stand to scour the Face of the Bastion, and ought never to exceed the reach of a Musquit. It is *Fichant*, when it is drawn from the Angle of the Curtin to the Flanked Angle, which ought never to exceed 800 Foot ; and *Razant*, when it is drawn from a Point in the Curtin, razing the Face of the Bastion ; this Line shews how much of the Curtin is taken off for the second Flank.

LAZIERE ; *Berm*, *Fore-land*, or *Relais*, is a Space of Ground left at the Foot of the Rampart, on the Side next the Country, designed to receive the Ruins of the Rampart, to prevent its filling up the *Foss* ; it is sometimes palisaded for the

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more Security ; when this Space is covered with a *Parapet*, it is called a *Fausebray*, or Low Wall.

LOCKSPIT, is the small Cut or Trench made with a Spade of about a Foot wide, to mark out the first Lines of a Work.

LODGMENT, is a Work raised with *Earth*, *Gabions*, *Fascines*, *Wool-Packs*, or *Mantelets*, to cover the Besiegers from the Enemies Fire. In conducting the Approaches at certain Distances, are made Lodgments, or Places of Arms, to flank the Trenches, capable of holding 100 Men, which serve as a Guard to the Trenches. Lodgments made on the *Glacis*, *Covert Way*, *Breach*, &c. are much more dangerous, as they are more exposed to the Enemies Fire, and having less Earth. When it is resolved to insult the Covert Way, there must be great Provision made of Fascines, Sand-bags, &c. in the Trenches ; and during the Action the Pioneers with Fascines, Wool-Packs, or Sand-

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Sand-Bags, should be making the Lodgment ; covering themselves as advantageously as possible from the opposite Bastion, or Place most to be feared.

LUNETTE, is a small Work raised sometimes in the middle of the Foss, before the *Curtin*, forming the Angle ; its Terreplein rising but a little above the Surface of the Water, about 12 Foot broad, with a Parapet of 18 Foot.

There is another sort of *Lunettes*, which are larger, and raised to cover the Faces of a Half-Moon ; they are likewise composed of two Faces, a longer and a shorter.

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MADRIERS, are long Planks of Wood very broad, used for supporting the Earth in Mining, in carrying on a Sap, in making Coffers, Caponiers, Galleries, and many other Uses at a Siege. They are likewise used to cover the mouth of Petards after they are loaded, and are fixed with the Petards to the Gates, or other Places designed to be forced open ;

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when the Planks are not strong enough, they are doubled with Plates of Iron,

MAIN-BODY of the Army, is the Body of Troops that marches between the Advance and the Rear-Guard. In a Camp, it is that part of the Army which is encamped betwixt the Right and Left Wing.

Main-Guard, is a Body of Horse posted before the Camp, for the Safety of the Army. In Garrison, it is that Guard to which all the rest are subordinate.

MAJOR of a *Regiment of Horse and Foot*, is the next Officer to the *Lieut. Colonel*, and is generally made from eldest *Captain* ; he is to take care that the Regiment be well exercised, that it be drawn up in good Order at a Review, or upon a Parade, or any other Occasion ; to see it march in good Order, and to rally it, in case of it's being broke, He is the only Officer among the Foot that is allowed to be on Horse-back in time of Action, that he may be the readier to execute the *Colonel's*

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Colonel's Orders, either in advancing or drawing off the Regiment : he has an *Adjutant* appointed for his Assistant.

Major-General, is the next Officer to the Lieutenant-General; when there are two Attacks at a Siege, he commands that on the left. His chief Business is to receive the Orders every Night from the General, or in his Absence, from the Lieutenant-General of the Day, which he is to distribute to the Brigade-Majors, with whom he is to regulate the Guards, Convoys, &c. and appoints the Place and Hour of their Rendezvous. He is to know the Strength of each Brigade in general, and of each Regiment in particular, and to have a List of all the Field Officers. Finally, he is in the Army, the same as the Major of a Regiment in the Regiment : He is allowed an Aid de Camp, and has a Serjeant and 15 Men for his Guard.

Town-Major, is the 3d Officer in a Garrison ; his Business is to see the Guards mounted, the

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Rounds and Posts assigned ; he regulates the Centinels, goes every Evening to receive the Word from the Governor, and gives it out upon the Place of Arms, to the Adjutants and Serjeants of the Garrison ; he goes his Round-Major, visits the Corps de Gardes, and sees that all the Soldiers Arms are fixed, and in good Order ; he causes necessary Ammunition to be distributed among them, orders the Gates to be opened and shut, and gives the Governor an Account of all that passes in the Place.

MANTELETS, are great Planks of Wood about five Foot high, and three Inches thick, which serve at a Siege to cover the Men from the Enemies Fire, being pushed forward on small Trucks ; they are of two sorts, either single or double. Single Mantellets are made in joining two or three Planks together with Bars of Iron, to make three Foot, or three and a half broad, to cover those that carry them from the Ene-

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Enemies Fire. Double Mantelets, are made by putting Earth between two such Rows of Planks, and are used in making Approaches and Batteries near the Place, as the others are in making Lodgments on the Counterscarp; they are covered with Latten, and are made smaller at Bottom than at Top, that they may be the more easily joined together, to cover the Soldiers from the Grenades and Fireworks of the Place, some are so made, as to cover the Soldiers from the Fire on Front or in Flank.

MARCH, in general, is the Steps made in marching, or the moving of a Body of Men from one Place to another. The Beat of the Drum, when the Soldiers are upon March, or beginning to march, is likewise called the March. It is likewise a Word of Command, when a Battalion is to alter its Disposition.

MARSHAL of *France*, is the highest Preferment in the Army or in the Fleet: it is the same with Captain-General; when two or more Marshals are in one

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Army, the eldest Commands.

Velt-Marshal in Germany, Brandenburg, Holland, &c. is likewise the same with Captain-General.

Marshal de Camp, is in France the next Officer to the *Lieutenant-General*, and is the same as a *Major-General* with us.

MASTER DE CAMP in France, is he who commands a Regiment of Horse, being the same as a Colonel of Horse.

Master de Camp General, is likewise a Post in France, being the second Officer over all the Light Horse, and commands in the Absence of the *Colonel General*.

MATROSSES, are Soldiers in the Artillery next to a Gunner; their Business is to assist the Gunners about the Gun, to traverse, sponge and fire, to assist him in loading, &c. they carry Firelocks, and march along with the Store Waggon, both as a Guard, and to help, in case a Waggon should break down.

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MEASURE-ANGLE, is an Instrument of Brass for measuring *Angles*, either Saliant or Rentrant, to know exactly the number of Degrees and Minutes, to lay them out upon Paper.

MERLON, is that part of the Parapet which is terminated by two Embrasures of a Battery, so that its Height and Thickness is the same with that of the Parapet, but its Breadth is ordinarily nine Foot on the inside, and six on the out-side. It serves to cover those on the Battery from the Enemy : And it is better of Earth, well beat and close, than of Stone, because this flies about, and wounds those whom the Work shall defend.

MILITARY-EXECUTION, is the ravaging and destroying a Country for Contribution.

MINE, is an Overture made in a Wall or other Place, which is designed to be blown up with Powder, it is composed of a Gallery and a Chamber. The Gallery is the first Passage made under Ground, being no higher nor broader than to suffer a Man to work on his Knees. The

M I N

Chamber is the small Space at the End of the Gallery, like a small Chamber where the Barrels of Powder are deposited, for blowing up what is proposed to be sprung. When the Chamber is dry, the Powder is put in Sacks instead of Barrels, and the form of the Chamber is cubical ; its Height and Depth being about six Foot. When the Mine is under the Rampart of an empty Bastion, left by the Thinness of the Earth on the side next the Place, the Powder should burst forth that way ; the Top of the Chamber is cut into two Passages like Chimneys, to oblige the Mine to have its Effect upwards. If the Chamber be humid or damp, the Powder is put into Barrels or Caïssons, and fired with a Sacifs. If the Places to be blown up be rocky, or if there happen to be any thing else in the Way to hinder the Miners, they make Fourneaux, *Arraignee*, or Rameaux, all which are the same thing, and signify Branches, which terminate in small Mines, and are fired all together by several Saucisses.

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The Gallery of a Mine goes turning and winding, the Earth is put in small Baskets, and given out betwixt the Miners Legs backwards from one to another, because of the Narrowness of the Passage. The Earth of the Chamber is to be supported with Planks, and when the Chamber is damp, it must be floor'd with Boards.

MINER, is he that works in the Mine; he covers his Head with a Hood, to save his Eyes from the Earth that falls down, which by this Hood is thrown over his Shoulders.

MINION, is a Piece of Cannon carrying a Ball of four Pound weight, the Diameter of its Bore is 3 Inches and 3 eights, and the length of the Piece about six foot and a half.

MOAT, *Ditch* or *Foss*, is a Depth or Trench round the Rampart of a Place, to defend it, and prevent Surprizes; the Brink of the Moat next the Rampart, is called the Searp, and that opposite on the other side, is called the Counterscarp, which forms a reentring Angle before the Center of the

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Curtin. A dry Moat round a Place that is large, and has a strong Garrison, is preferable to one full of Water, because the Passage may be disputed Inch by Inch, and and the Besiegers, when lodged in the Moat, are continually exposed to the Bombs, Grenades, and other Fireworks, which are thrown incessantly over the Rampart on their Works. In the Middle of dry Moats, is sometimes made another small Moat, called the Cunnette, which is generally dug so deep, till they find Water to fill it. The deepest and broadest Fosses are counted the best; but a deep Foss is preferable to a broad one; the ordinary Breadth is about 20 Fathom, and the Depth about 16 Foot. To drain a a Foss or Moat full of Water, is to dig a Trench deeper than the Level of the Water, to let it run out; when it is drained, there are Hurdles thrown upon the Mud and Slime, and covered with Earth, or Bundles of Rushes, to make a sure and firm Passage.

MOINEAU, is a French

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Term for a little flat Bastion raised upon a Re-entring Angle before a Curtin, which is too long, between two other Bastions; it is commonly joined to the Curtin, but sometimes separated by a Foss, and is then called a detach'd Bastion; they are not raised so high as the Works of the Place, because they must be exposed to the Fire of the Besieged, in case the Enemy should lodge themselves there. Their Parapet, as well as the Parapet of all Out-Works, ought to be Cannon-Proof, that is to say, 18 Foot thick.

MONT-PAGNOTE, is an Eminence chosen out of Cannon-Shot of the Place besieged, where curious Persons post themselves to see an Attack; and the manner of the Siege, without being exposed to any Danger.

MORTARPIECE, is a sort of a short Piece of Artillery, reinforced, and of a wide Caliber, differing from a Cannon, both in Form and Use; the Cannon serve to throw Ball, and the Mortar to throw Bombs, Carcasses, Fire-Pots, and several other sorts of Fireworks, as like-

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wise Stones. Mortars are used both at Sea and Land, but they differ much in Form. A Sea Mortar is generally 13 Inches Diameter of the Bore, is longer and more reinforced than a Land Mortar, because they are fired with a greater Quantity of Powder, sometimes with 30 or 33 Pound; some of them have their Beds or Stools of Metal cast in a Piece with the Mortars, others have them of a thick square Piece of Oak, which by the Help of Hand-Screws or Jacks, is turned round upon a strong Axis of Iron, to fire any way; they carry Bomb of 200 Pound, and generally weigh about 9 or 10000 lb.

Land Mortars are of different sorts; those used most in *England*, are, 10, 13, 15, and 18 Inches Diameter; there are smaller Mortars of six and eight Inches; all but the 18 Inch *Mortars* are mounted on a very thick Plank of Oak, on which rise two Cheeks or Brackets on the Sides of the Mortar. But the 18 Inch is mounted on a *Low Dutch Carriage*, consisting of two strong Planks of Wood, bound with thick Plates of Iron, and joined

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joined together with Transoms of Wood. All Land Mortars may be elevated to any Degree of the Quadrant. They have no Wheels, therefore on a March they are laid upon a Block Carriage made on purpose. They are never carried along with the Army, because of their great Weight, except upon an Occasion of a Siege or Bombardment; but a sort of small Mortars called Hobits, mounted in Gun-Carriages, are always a part of the Field Artillery.

Hand-Mortars are likewise of several sorts, as *Tinkers-Mortars*, which are fixed at the End of a Staff, of about four Foot and a half long, the other End being shod with Iron to stick in the Ground, while a Soldier with his one Hand keeps it at an Elevation, and with the other Hand fires. *Firelock Mortars* are fixed in a Stock with a Lock like a Firelock; they swing between two Arches of Iron, with Holes answering one another, by which the Mortar is elevated; these stand upon a Sole or Plank of Wood, and may be carried by one Man from one Place to ano-

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ther. There are more sorts of Hand Mortars, but *Coeborne's* new Invention exceeds them all, so far as to deserve a particular Description. They are made of hammer'd Iron of four Inches Diameter of the Bore, ten Inches and a half long, and nine Inches in the Chace, fixed upon a Piece of Oak 20 Inches long, 10 and a half broad, and betwixt 3 and 4 thick; they stand fixed at 45 Degrees of Elevation, and throw Hand Grenades, as all other Hand Mortars do; they are placed in the bottom of the Trenches, at two Yards Distance from one another, having each a Soldier to serve it, and an Officer to every 40 or 50, who lays them to what Elevation he thinks convenient, by raising or sinking the hind part of the Bed; three or four hundred of them are sometimes in Service at once, in different parts of the Trenches, 60, 70, or 80 in a Place: Those in one Place fire all at once immediately after the Batteries have done, and are answered from another part of the Trench, which brings such

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such a shower of Hand Grenades into the Covert Way, that those who defend it, are thrown into unavoidable Confusion.

Motion of a Bomb or Ball, is the Progress it makes in the Air after it is delivered, and is of three sorts: The *Violent Motion*, is the first Expulsion when the Powder has worked its Effect upon the Ball, or so far as the Bomb or Ball may be supposed to go in a right Line. The *Mixt Motion* is, when the weight of the Ball begins to overcome the Force which was given by the Powder, and the natural *Motion* is, when the Ball or Bomb is falling.

MOULDINGS of a Gun or Mortar, are all the eminent Parts, as Squares or Rounds, which serve generally for Ornament, such as the *Breach Mouldings* and *Muzzel Mouldings*; the *Rings of a Gun* are likewise *Mouldings*.

To Mount the Guard, is to go upon Duty: *To mount a Breach*, is to run up it, or to attack: *To mount the Trenches*, is to go upon Guard in the *Trenches*.

MUSQUET, is the most

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commodious and useful Fire-Arm used in the Army, either in attacking or defending a Post; it is easily managed, and is carried with small Trouble, which makes its Use the more common; the Pikes being laid aside in our Army of late, and *Musquets* brought in their stead, shows, that tho' Pikes are useful, yet *Musquets* are much more, and can do better Service. They carry a Ball of 16 in the Pound: The Length of the *Line of Defence* is limited in *Fortification*, by the ordinary Distance of a *Musquet-Shot*, which is about 120 Fathom, and almost all the *Military Architecture* is regulated by this Rule for the Length of the Defence, as the Effect of Cannon gives a Rule for the Thickness of the *Ramparts* and *Parapets*.

MUSQUETEER, is a Foot Soldier armed with a *Musquet* or *Firelock*, *Sword*, *Bayonet*, &c. The *Grand Musqueteers* in France, are *Troops* who fight sometimes on Horseback; they are Gentlemen of good Families, and are divided into two *Troops*,

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Troops, the one called the *Grey Musqueteers*, because of the Colour of their Horses, the other the *Black Musqueteers*, for the same Reason.

MUSTER, is a narrow Review of *Troops* under Arms, to see if they be compleat, and in good Condition; that their *Arms* and *Accoutrements* be in good Order; thereby to know the Strength of an Army: The *General* may order either *Muster* or *Review*, as often as he pleases.

Muster-Rolls are the *Rolls* or *Lists* of the *Companies* or *Troops*, which are delivered to the Commissary by the Captains.

MUZZLE of a Gun or Mortar is the Extremity of the Cylinder where the Powder and Ball is put in.

Muzzle-Mouldings, is the Ornament round the *Muzzle*.

To nail Cannon, or, as some say, to Cloy them, is to drive an Iron Spike by main Force into the Vent or Touch-hole, which renders the Cannon useless, till the Spikes be either got out, or a new Vent drilled. In all Sortees or Sallies of a Place

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besieged, nothing is so glorious as the nailing of the Besiegers Cannon, nor so advantageous to the Garrison, for it takes the Enemy some time to repair it.

NECK of a Gun, is that part betwixt the *Muzzle-Mouldings* and the *Cornish-Ring*. Neck of the *Cascabel*, is the part betwixt the *Breach-Mouldings* and the *Cascabel*.

Oblique-Defence is that which is under too great an Angle, as is generally the Defence of a second-Flank, which can never be so good as a Defence in *Front*, nor is it approved by *Engineers*.

OCTOGON, is a Figure of 8 Sides, or Polygons, forming the same Number of Angles, and capable of being fortified with 8 Bastions.

OFFICER in the Army, is a Person having a Command in the Army. Those having Commissions from the King or General, are called *Commissioned Officers*, which includes all from the General to an *Ensign*. Such as have no Commission, but only Warrants from their Colonels, are called *War-rant-*

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rant-Officers, as *Quarter-Masters of Horse*, and *Surgeons*. Those that have neither Commissions nor Warrants, are called *Staff-Officers*, as *Serjeants*, *Corporals*, *Lanspesades*, &c.

General Officers, are such as command a Body of Troops of several Regiments, as the *Captain-General*, *Lieut. General*, *Maj.-General*, *Brigadier General*, *Quarter-Master-General*, and *Adjutant-General*.

Field-Officers, are those who have a Command over a whole Regiment, as the *Colonel*, *Lieutenant-Colonel* and *Major*.

Subaltern Officers, are the *Lieutenants*, *Cornets* and *Ensigns*.

TO OPEN Trenches, is the first breaking of Ground by the *Besiegers*, in order to carry on their Approaches towards a Place. The Difference betwixt opening and carrying on the Trenches, is, that the first is only the beginning of the Trench, which is always turned towards the *Besiegers*: It is begun by a small Foss, which the *Pioneers* make in the Night-time on their Knees,

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generally a *Musquet-shot*, from the Place, or half a *Canon-Shot*, & sometimes without the reach of *Canon-Ball*; especially if there be no *Hollows* or rising Grounds to favour them, or if the *Garrison* be strong, and their *Artillery* well served. This small Foss is afterwards enlarged by the next *Pioneers* which come behind them, who dig it deeper by *Degrees*, till it be about 4 Yards broad, or 4 or 5 Foot deep, especially, if they be near the Place; to the End, the Earth which is taken out of it may be thrown before them to form a *Parapet*, to cover them from the Fire of the *Besieged*: The Place where the Trenches are opened, is called the End of the Trench.

OPEN, is a Word of Command, as *Open your Ranks backward* to such a Distance, is when the Ranks fall back without changing Aspect, observing their *Right-hand-Men* and their *Leaders*. *Open your Files from the Center*, is when they face outwards from the Center: If there be an odd File it stands, the rest take the

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the Distance commanded. Open your Files to the Right or Left.

ORDER, is a Word of Command, as Order your Firelock, is the planting the But-End of the Piece against the middle of the outside of the Right Foot, with the Lock outwards.

Order of Battle, is a Disposition of Battalions, and Squadrons of an Army, in one or more Lines, according to the Nature of the Ground, either to engage an Army, or to be reviewed by the General.

Orders, are Notice given every Night by the General to the Lieutenant-General of the Day, who conveys them to the Major-General, and he to the Brigade-Major, who gives them to the Adjutants, and they to the Sergeants, that the Army may know when to march; what Detachments, &c. are to go abroad next Morning; when they are to Forrage or Graze; when they are to muster or review, and many other Things; the Orders are generally given out in the Evening at the Head Quarters, where all the

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Generals meet at that time. Orders in general, signify all that is commanded by a Superior Officer.

ORDINANCE, all sorts of Guns, Mortars, Firelocks, Carabins, Pistols, &c. all sorts of Arms or Stores, belonging either to Offence or Defence.

ORGNES, are thick long Pieces of Wood pointed and shod with Iron, clear one of another, hanging each by a particular Rope or Cord over the Gate-way of a strong Place, perpendicular, to be let fall in case of an Enemy. Their Disposition is such, that they stop the Passage of the Gate, and are preferable to Herfes or Portcullises, because these may be either broke by a Petard or they may be stopped in their falling down: but a Petard is useless against an Orgne, for if it break one or two of the Pieces, others immediately fall down, and fill up the Vacancy; or if they stop one or two of the Pieces from falling, it is no Hindrance to the rest, for being all separate, they have no dependence on one another.

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ORILLON

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ORILLON, is a Mass of Earth faced with Stone, built on the Shoulder of a *Casemated Bastion*, to cover the Cannon of the retired Flank, and hinder its being dismounted by the Enemies Cannon. They are made sometimes round, and sometimes square; some maintain the round to be best, because they are not so easily beat down by the Cannon of the Besieged, for the Roundness hinders the Ball very much from its Effect. Others like the square Orillons better, because they are less Charge, and can contain more Men to fire directly on the Face of the opposite Bastion, than the round can do. Orillon is likewise called the Shoulder and the Epaulment.

OVAL, is a plain Figure bound by its own Circumference, within which no Point can be taken, from which all Right Lines drawn to the Circumference can be equal.

OUT-WORKS, which are likewise Advanced-Works, Detached and exterior-Works, are Works of several sorts, which cover the

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Body of the Place ; as Ravelins, Half-Moons, Tenailles, Horn-Works, Crown-Works, Counter-Guards, Lunettes, &c. These serve not only to cover the Place, but likewise to keep an Enemy at Distance, and to hinder his getting any Advantage of Hollows or rising Grounds that may happen near the Counterscarp of the Place ; for these Cavities and Eminences may serve for Lodgments to the Besiegers, and facilitate the carrying on their Approaches, and raising their Batteries against the Town. When Out-Works are for some Reasons placed one before another ; then the nearest to the Body of the Place must be the highest, tho' lower than the Works of the Place, that they may command gradually those which are without them, that the Enemy may be obliged to dislodge, in case they had Possession of them, as likewise lest the Enemy, being Masters of them, should the easier cover themselves ; so that the first Ravelin ought to be lower than the Tenaille of the Place, and higher than
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the Horn-Work, and the Horn-Work ought to be higher than the small Ravelin which covers it. The Gorges of all Out-Works must be plain, lest the Besiegers being Masters of the Work, it should serve to cover them from the Fire of the Place.

PALISADES, are long Pieces of Wood or Stakes, planted generally before Posts, which might be taken by Surprise, or where the Access is very easy, to secure them both from a sudden and a regular Attack. They are generally 4 Foot long, & 6 or 7 Inches square; the one End is pointed, and the other is let 3 Foot perpendicularly into the Ground: Sometimes they are planted obliquely, pointing towards the Enemy, that in case the Besiegers should endeavour to pull them out with Cords, the Cords may slip off, having no hold. Palisades are planted on the Berm, at the Foot of Bastions of Places surrounded with a wet Foss, to prevent an Escalade or Surprise. They are likewise planted in the Bottom of dry Moats, especially if there

be Traverses made. Sometimes they are set in the Gorges of Half-Moons, and other *Out-Works*. But above all, the Parapet of the Covert-Way must be well Palisaded, either on the Parapet, or in the Covert-Way. They are to stand so close, that the Muzzle of a Musquet can but just get betwixt them. The Method of planting them, is by digging a Trench of about a Foot, or a Foot and a half wide, and three Foot deep, which after the Palisades are set in as close to one another as before said, the Trench is then filled with Earth, which is beat and set very hard about the Palisades with Rammers. Palisades are very useful, and a good Defence in all sorts of Fortifications, provided they be well planted and close. They are likewise useful in Sieges, to plant on the outside of the Fosses of the Batteries, to prevent the Besieged from surprizing the Batteries in their Sallies, and their nailing the Cannon. Palisades are either pulled up by shaking them with

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Ropes, cut down the Grenadiers, beaten down with Cannon, or burned down with small Fascines pitched over.

Turning-Palisades, is an Invention of Coehorne's. To preserve the Palisades of the Parapet of the Redans from the Besiegers Shot, he orders them so, that as many of them as stand in a Rod's Length, turn up and down like a Trap, with all the Facility imaginable. They are a good Defence, because they are not in Sight of the Besiegers, but just when they bring on their Attack, and yet are always ready to do the proper Service of Palisades. They are likewise frugal, because they may be preserved in the Magazines, and need not be left on the Parapet; besides, there may be square Palisades kept ready to supply the Place of such as may be broke by the Besieger's Cannon.

PARADE, is the Place where Troops meet together to go upon Guard, or any other Service. In a Garrison where there are 2 or 3, or more Regiments, each has their Parading-Place appointed, where they are to

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meet upon all Occasions, especially upon any Alarm. In a Camp, all Parties, Convoys, or Detachments, that are to go abroad, have a Parading Place appointed them at the Head of some Regiment.

PARALLEL, is a Term in Geometry, signifying two Lines equally distant from one another; which if prolonged ad infinitum, would never meet: the opposite Sides of a Square are parallel one to another. The Ranks of a Battalion are likewise parallel, so are the Files amongst themselves. The Counterscarp is generally drawn parallel to the Faces of the Bastion.

Parallels at a Siege, signify the Trenches or Lines made parallel to the Defence of the Place besieged; they are likewise called Lines of Communication and Boyaus.

PARAPET; is an Elevation of Earth, designed for covering the Soldiers from the Enemies Cannon or small Shot, wherefore its Thickness is from 18 to 20 Foot; it is 6 Foot high on the inside, and 4 or 5 on the Side next the Country;

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Country ; it is raised on the Rampart, and has a Slope above called the Superior Talus, and sometimes the Glacis of the Parapet, on which the Soldiers lay their Musquets for to fire over : This Pente or Slope makes it easy for the *Musqueteers* to fire into the Ditch, or, at least on the Counterscarp. To fire raising the Glacis of the Parapet, is called firing in Barbe. The Exterior Talus of the Parapet, is the Slope facing the Country. The height of the *Parapet* being 6 Foot on the inside, it has a *Banquett* or two for the Soldiers who defend it, to mount upon, that they may discover the Country the better, as likewise the Foss and Counterscarp, to Fire as they find Occasion.

Parapet of the Covert-Way, or *Coridor*, is what covers that Way from the Sight of the Enemy, which renders it the most dangerous Place for the Besiegers, because of the Neighbourhood of the Faces, Flanks and Curtins of the Place ; it is the same with Glacis, which signifies that whole Mass of Earth that serves to

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cover the Coridor, and goes sloping towards the Country.

PARK of Artillery, is the Place appointed for the Encampment of an Artillery, which is generally the Rear of both Lines of the Army. See *Artillery-Park*.

Park of Artillery at a Siege, is a Post fortified out of Cannon-Shot of a Place besieged, where are kept all the Arms and Utensils necessary for a Siege ; as *Bombs*, *Petards*, *Carcasses*, *Hand Grenades*, *Powder*, *Ball*, &c. with all sorts of Instruments for removing the Earth, as *Spades*, *Shovels*, *Pickaxes*, *Bills*, *Hows*, and *Wheel-Barrows*, with many things more. Great Precaution is to be had about the *Park of Artillery*, for fear of Fire ; therefore the Centries have their Pikes or Staves made on purpose, for they are not allowed to stand with Firelocks.

Park of Provisions, is the Place where the Sutlers pitch their Tents, and sell Provisions to the Soldiers ; which is in the Rear of each Regiment, but the chief of all is the Ground allotted at the Head

Head Quarters for the Suttlers, where there is still every thing requisite to be had, and it is from thence for the most part that the Suttlers are furnished. But I think the Place where the Bread-Waggons are drawn up, and where the Soldiers receive their Ammunition-Bread, being the Store of the Army, is properly the *Park of Provisions*.

PARTISAN, is a Person who is very dexterous in commanding a Party, and knows the Country very well; he is employed in surprizing the Enemies Convoys, or in getting Intelligence.

Partisan-Party, is a small Body of Infantry given to a *Partisan*, to make an Incur-sion upon the Enemy, to lurk about their Camp, to disturb their Forragers, and to intercept their Convoys.

Partuisan, is a Weapon sometimes carried by Lieutenants, not unlike a Halbert.

PARTY, is a small Body of Horse or Foot, sent into the Enemies Country, to pillage or take Prisoners, or to oblige the Country to come under Contribution,

which is to pay a certain Sum of Money, to redeem themselves from Plunder. *Parties* are often sent out by a General to view the Way and Roads, and to gain Intelligence, to look for Forrage, or to amuse the Enemy. Upon a March they are frequently sent upon Flanks of the Army, to discover the Enemy if near, and to prevent the Army's being surprized.

Party-Blue, are a Company of Villains who infest the Roads in the *Netherlands*; they belong to neither Army, but rob both Sides, without any Regard to Passes.

PATEE, a small Work not unlike a *Horse Shoe*, that is to say, an Elevation of Earth of an irregular Form, but for the most part oval, having a Parapet; it is generally raised in marshy Grounds, to cover the Gate of a Place; it has only a fore-right Defence, and has nothing to flank it.

PATROUILLE, is a Night Watch, consisting of 5 or 6 Men commanded by a Serjeant, who are sent from the Guard to walk in the Streets,

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Streets, and prevent Disorder.

PAVILION, an old Term for a Tent, see Tent.

Pay-Master, is he who is entrusted with the Payment of a Regiment.

PEDRERO, a small sort of Guns used on the *Quarter-Decks* of Ships; some of them have Breeches to screw out, so that they receive the Charge that way.

PENTAGON, is a Figure bounded by five Sides or *Polygons* which form so many *Angles*, capable of being fortified with the like Number of *Bastions*.

PETARD, is an Engine of Metal shaped like a Sugar-Loaf, or High-Crown'd-Hat, made for breaking open *Gates*, *Draw-Bridges*, *Barricades*, *Barriers*, &c. its Length is 7 or 8 Inches, the Diameter of the Mouth is five Inches, and that at Bottom one and a half; the Thickness of Metal at the Neck is half an Inch, and that of the Breach 12 or 15; its Charge of Powder is 5 Pound, or thereabouts, and it weighs about 55 or 60. There are much larger and stronger *Petards*, and there

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are likewise smaller: The first are employed in breaking open strong reinforced *Gates*, and the last such as can but make but small Resistance. When the *Petard* is loaded with Powder, it is put upon a strong piece of Plank covered with a Plate of Iron on the outside, which covers the *Ouverture*, being hallowed a little for the Purpose; the Place where they join, is done over with Wax, Pitch Rosin, &c. to inforce the Effect. This being done, it is carried to the Place designed to be blown up, where joining the Plank exactly to the Gate, the *Petard* is stay-ed behind, and fired by a *Fusee*, that the *Petardeer* may have time to get off. They are sometimes used in *Counter-Mines*, to break through into the Enemies Galleries to disappoint their Mines.

PETARDEER, is he who loads, fixes and fires the *Petard*, and ought to be a Man of Courage, for he is often exposed.

PICKET, is a small pointed Staff shod with Iron, which serves to mark out the Angles.

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Angles of a Fortification, and the principal Parts, when the Engineer is tracing a Plan upon the Ground with a Line. There are likewise small pointed Stakes, which serve to drive through *Fascines* or *Gazons*, to keep them fast when the Earth is bad, or the Work raised in haste.

Pickets, are likewise the Stakes which the *Troopers* drive before the Tents, about two Yards Distance ; from one to another of these *Pickets*, is stretched a Rope called the *Picket-Rope*, to which they tie their *Horses*.

Picket, is likewise a Stake of nine or ten Foot high, fixed in the Ground, and standing upright ; round the Foot of it are small Sticks with sharp Points : This is at the Head of each Regiment of Horse, to punish Crimes that do not deserve Death, by putting the Criminal with his Foot on one of these small pointed Sticks, and tying up his Hand to a Ring above his Head, so that he neither stands nor hangs, nor can he shift his Foot, nor change Feet to ease himself.

P I L

PIECE of Ordnance, includes all sorts of great *Guns* and *Mortars*. *Battering-Pieces*, are the large Guns used at Sieges for making the Breaches, such as the 24 *Pounder* and the *Culverin* ; the one carrying 24, and the other 18 Pound Ball. *Field-Pieces* are 12 *Pounders*, *Demi-Culverins*, 6 *Pounders*, *Sakers*, *Minions*, and 3 *Pounders*, which march with the *Army*, and encamp always behind the second *Line*, but in Day of Battle are in the Front. A Soldier's Fire-lock is likewise called his *Piece*.

PIKES, are the Arms carried by Pike-Men, who used formerly to be a third part of the Company, but they are now turned to Musqueteers.

Half-Pike, is the Weapon carried by an Officer of Foot, and differs from a Pike, because it is but 8 or 9 foot long, and the Spear is smaller and narrower.

PILE or Pyramid of *Bombs* or *Ball*, which is the way of disposing them in Magazines, is the piling them up regularly in the Courts

P I O

Courts of the Arsenal, as may be seen at *Woolwich*; as suppose 385 Bombs to be made in a Pile, the first must be laid in a Square of 10 on each Side, which makes 100 in the first Bed, and let half a Foot in the Ground; to the end, the great Weight which comes above them may not force them to slide out, for then the whole Pile falls: The second Bed will be 81, which is 9 of a Side, and must be laid on the vacant Space which happens between every 4 Bombs of the first Bed; and the third Bed being eight of a side, is sixty four laid the same way, and so to the Top of the Pile; which will terminate in one Bomb making a Pyramid, whose Basis is a Square.

PIONEERS, are such as are commanded in from the Country, to march along with an Army for mending the Ways, for working on Entrenchments and Fortifications, and for making Approaches; but the Soldiers are most generally employed in all these things.

PIVOT, is a piece of I-

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ron or Brass rounded at the Point, that it may turn easily round in a Piece or Sole of Iron or Brass, hollowed to receive it.

PLACE, signifies a Fortrefs or Town fortified regularly or irregularly, and is often used; and when we say it is a strong Place, &c.

Place of Arms in a Town, is a Space left near the Center of the Place, where generally the *Grand Guard* is placed, and where the Soldiers of the Garrison come to draw up in *Battalia*, to mount the *Guard*, from whence they are marched to their particular Posts. On an Alarm, the Soldiers who are not on Guard, are to repair thither with their Arms. In Places regularly fortified, the *Place of Arms* ought to be in the Center, and of a Figure like that of the *Polygon*; its Greatness ought likewise to be proportioned to the *Polygon*.

Place of Arms of an Attack, or of a Trench, is a Foss with a Parapet, or an Epaulment to cover a Body of Horse or Foot, where they

they may be at their Arms to withstand the Sallies of the besieged. The Places most convenient for making *Places of Arms*, are such as can easily succour one another, & are out of sight of the Defences of the Place besieged, as Hollows, or hollow Ways, especially if they cross one another, for their Depth serves as a Parapet to cover the Infantry: If they have not that natural Depth, they may supply that Defect with Gabions, Sand-Bags, or whatever can hinder the Besiegers from seeing into it. If there be a Foss made round it, it is called a Redoubt. In carrying on the Trenches, there must be such Redoubts raised at convenient Distances to lodge the Infantry, which have the Guard of the Trenches.

Place of Arms of a Camp, is the Place chosen at the Head of the Camp for the Army, to form themselves in Line of Battle, for a Review, or the like.

Place of Arms of a Troop of Horse, or Company of Foot, is the Place where the Troop or Company are

assembled.

Plan, Ground Plot, or Ichnography in Fortification, is the Representation of the first or fundamental Tract of a Work, shewing the Length of its Lines, the Quantity of its Angles, the Breadth of the Ditches, Thickness of the Rampart and Parapets, and the Distance of one part from another: So that a Plan represents a Work, such as it would appear, if it were cut equal with the Level of the Horizon, or cut off at the Foundation. But it marks neither the Heights nor Depths of the several Parts of the Works, which is properly profile, and which expresses only the Heights, Breadths and Depths, without taking notice of the Lengths. As Architects, before they lay the Foundation of their Edifice, make their Design on Paper, by which Means they find out their Faults; so an Engineer, before tracing his Works on the Ground, should make Plans of his Designs upon Paper, to the end he may do nothing without

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without serious Deliberation. Plans are very useful for Generals or Governors, in either attacking or defending a Place, in chusing a Camp, determining Attacks, conducting the Approaches, or in examining the strength and weakness of a Place; especially such Plans as represent a Place with the Country about it, showing the Rivers, Fountains, Marshes, Ditches, Valleys, Mountains, Woods, Houses, Churches, and other Particulars, which happen about a Place.

PLANKS or Madriers, are Pieces of Oak very thick and broad, see Madrier.

PLATES. The Prise-Plates, are two Plates of Iron on the Cheeks of a Gun-Carriage from the Cape-square to the Center, through which the Prise-Bolts go, and on which the Hand-Spike rests, when it poises up the Breech of the Piece. Breast-Plates are the two Plates on the Face of the Carriage, one on each Cheek. Train-Plates, are the two Plates on the Cheeks, at the Train of the Carriage. Dulidge Plates, are

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the six Plates on the Wheel of a Gun Carriage, where the Fellows are joined together, and serve to strengthen the Dulidges.

PLATFORM, in general, is an Elevation of Earth on which Cannon is placed, such as the Mounts on the Middle of Curtins: But it is likewise a sort of Bastion constructed on a Re-entring Angle, when its two Faces make a right Line. Platform of a Battery, is a Floor of Boards nailed down upon Sleepers, sloping a little towards the Embrasure, for the Guns to run upon, and to keep the Wheels from sinking into the Ground. The Slope serves to diminish the Reverse of the Piece, and for the more easy running her up to her Embrasure. Each Gun has generally a Platform for her self. See Battery.

PLATOON, or rather Peloton, a small square Body of *Musqueteers*, such as is used to be drawn out of a Battalion of Foot, when they form the Hollow Square to strengthen the Angles. The Grenadiers

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are generally thus posted. Peloton is the *French* Word, only the vulgar Corruption has brought it to be pronounced Platoon.

PONIARD, a sort of Short Sword used in *Spain* and *Italy*.

Point-Blank of a Gun, is the distance she throws a Ball in a supposed direct Line; the Gun being laid at no Elevation, but levelled parallel to the Horizon. I say, supposed direct Line, because it is certain, and easily proved, that a Ball cannot fly any part of its Range in a right Line; but the swifter it flies, the nearer it approaches to a right Line; or the less crooked its Range.

POLYGON, is a Figure of more than four Sides, and is either regular or irregular, exterior or interior.

Polygon regular, is whose Angles and Sides are equal. It has an Angle of the Center, and an Angle of the Polygon. The Center of a regular Polygon, is the Center of a Circle, which circumscribes the Polygon, that is, whose Circumference passes through all the Angles of the Figure.

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Irregular Polygon, is whose Sides and Angles are unequal.

Exterior Polygon, is the Lines drawn touching the Points of the Flank Angles, when a Place is fortified inwards.

Interior Polygon, is to fortify outwards, which makes the Angles of the Polygon to be the Angles of the Gorge, so that the whole Bastion is without the Polygon.

PONTON, is a Boat of Lattin, about 8 Yards long, and 2 broad; the Form of it is a long Square, having a large Ring at each Corner; it is laid upon a Carriage when the Army marches, and drawn by 5 Horses. Each Boat has an Anchor or Cable, and Baulks and Chests belonging to it. The Baulks are about 5 or 6 Inches square, and about 7 Yards long. The Chests are Boards joined together by wooden Bars, about a Yard broad, and 4 Yards long. When there is occasion for using these Boats, they are slipped into the Water, and placed about
two

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two Yards asunder, each fastned with an Anchor, having besides, a strong Rope, which runs through the Rings, and is fastned on each side of the River to a Tree or a Stake made very fast in the Ground. The Baulks are laid cross the Boats, at some Distance from one another, and the Chests upon them joined close, which makes a Bridge in a very short Time for Horse, Foot or Artillery to march over.

PORT-FIRE, is a Composition of Meal-Powder, Sulphur and Saltpeter, ram'd into a Case of Paper, but not very hard; it is about 9 or 10 Inches long, and is used to fire Guns or Mortars instead of Match, but then it is cut into pieces of about an Inch long, and put in a Linstock.

POST, is any sort of Ground, fortified or not, where a Body of Men can fortify themselves, or be in a Condition of fighting an Enemy. To relieve a Post, is to go upon Guard in a Post.

Post of Honour; the Advance-Guard is a Post of

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Honour; the Right of the two Lines is the Post of Honour, and is always given to the eldest Regiments; the Left is the next Post, and is given to the next eldest, and so on; the Center of the Lines is the Post the least honourable, and is given to the youngest Regiments.

Advance-Post, is a Spot of Ground seized by a Party to secure their Front, & cover the Posts behind them.

POSTERN, is a small door in the Flank of a Bastion, or other Part of a Garrison, to march in and out unperceived by the Enemy, either to relieve the Works, or to make Sallies.

POUCH; a Grenadier's Pouch, is a square Case or Bag of Leather, with a Flap over it, hanging in a Strap of about two Inches broad, over the left Shoulder, in which he carries his *Grenades*.

POWDER, is a Composition of Sulphur, Saltpeter, and Charcoal. The Sulphur and Charcoal take fire, and the Saltpeter makes the Crack.

POUN-

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POUNDER, as a 24 Pounder, is a Gun carrying a Ball of 24 Pound; its Diameter is 6 Inches, the length is from ten to twelve Foot long, it is a good battering Gun. Twelve Pounder, is a Gun carrying a Ball of 12 Pound, the Diameter is four Inches and 5 eighths, its length from eight to ten Foot. Six Pounder carries a Ball of six Pound, its Diameter is three Inches and six eighths, its length from seven to eight Foot; and three Pounder, carries a Ball of 3 Pound, the Diameter of the Bore is three Inches, and the length of the Piece about six Foot, or six and an half.

PROVOST-MARSHAL of an Army, is one appointed to secure Deserters, and other Criminals; he is to go often abroad round the Army, to hinder the Soldiers from pillaging; he indites offenders, and executes the Sentence which is pronounced; he likewise regulates the Weights and Measures of the Army, and the Price of all sorts of Provisions.

PROFILE, (*see Plate*)

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QUADRANT, or Quarter of a Circle, is an Instrument of Wood used by Gunners, in pointing Guns to an Object, and by Bombardeers, in elevating their Mortars; it is made of two Pieces of Wood joined at right Angles, one of which is longer than the other, that it may enter the Muzzle of the Piece; they are joined by a Quarter of a Circle, which is divided into ninety Degrees, the Center of which is where the two Pieces join, from whence there hangs a Thread with a Plummets, which marks the different Elevations of Pieces, and the greatness of the Angles. The way of using it, is by putting the longest Side into the Muzzle of the Piece; the Plummets falls perpendicularly, and marks the Angle on the Quadrant; when the Gun or Mortar is elevated to the Degree desired, it is kept there by Coins of Wood put under the Breech of a Gun, or betwixt the Bracket-Bolts of a Mortar.

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QUADRAT; to quadrat a Piece, is to see whether it is duly placed in its Carriage, and that the Wheels be of an equal Height.

Quarter, signifies the sparing Mens Lives, and giving good Treatment to a vanquish'd Enemy.

Quarter in General, is the Ground on which a Body of Troops encamp, and signifies likewise the Troops encamped; as to beat up the Enemies Quarter, is to drive them from the Ground or Encampment.

Quarter of an Assembly, is the Place where the Troops meet to march in a Body, and is the same with a Place of Rendezvous.

Quarter at a Siege, is the Encampment upon one of the most principal Passages round about a Place besieged, to prevent Relief and Convoys: When it is commanded by the General, it is called the Head Quarters of the Army: When the Camp is marked out about a Place besieged, then the Quarters are said to be disposed: When great Detachments are made from a Quarter for Convoys, &c.

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such a Quarter is said to be weakened.

Head Quarters, is the Place where the General of an Army has his Quarters: It is generally near the Center of the Army. The Quarters of the Generals of Horse, are in the Villages that happen between the Right and Left Wings; the Generals of Foot are often in the same Village with the General.

Quarter entrench'd, is a Place fortified with a Ditch and Parapet to secure a Body of Troops.

Winter-Quarters, are some times taken for the Space of Time included between the leaving the Camp, and taking the Field; but they are more properly the Places where the Troops are lodged during the Winter.

Quarters of Refreshment, is the Place where the Troops that have been much fatigued are sent to refresh themselves, during a part of the Campaign; that having refreshed & recover'd themselves, they may be ready to take the Field again.

Quarter - Master of Horse,

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Horſe, is a Warrant-Officer appointed by the Colonel, he takes up the Ground for the Troop, and divides it, in allotting ſo much for each Tent; he receives the Orders, keeps a Liſt of the Troop, viſits the Stables, and takes care of the Arms. He marches in the Rear of the Troop, but in Camp his Tent is pitched in the Front. In Winter-Quarters he receives & diſtributes the Forrage to the Troop. Each Troop has a Quarter Maſter.

Quarter-Maſter of Foot, is an Officer who takes care of encamping the Regiment, for there is but one to a Regiment of Foot: He attends the Quarter-Maſter-General upon a March, to know where the Ground is for the Regiment, which he divides among the Companies.

Quarter-Maſter-General, is a conſiderable Officer in an Army, and ought to be a Man of great Judgment and Experience, and to underſtand Geography; and ſince his Province is to mark the Marches and Encampments of an Army, he ſhould know the Country

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perfectly well, all the Rivers, Plains, Marſhes, Woods, Mountains, Paſſages, Deſiles, &c. even to the ſmalleſt Brook. The Evening before a March, he receives the Orders and Rout from the General, and appoints a Place for the Quarter-Maſter of Foot and Horſe to meet him next Morning, with whom he marches to the next Camp, where being come, and having viewed the Ground, he marks out to the Quarter-Maſters the Ground allowed each Regiment for their Camp; he chuſes the Head-Quarters, and appoints the Villages for the General-Officers of the Army, where they ſhall quarter; he appoints a proper Place for the Encampment of the Train of Artillery; he carries the Army a Forraging, and plants the Covering-Party, for their Security, at all the Paſſes round them, and aſſiſts in diſtributing the Winter-Quarters to the Army.

Quarter Wheeling of a Body of Men, is turning the Front where the Flank was; which is done to the Right

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Right by the Man on the Right Angle, keeping his Ground, and facing about whilst the rest wheel.

Quit your Arms, is a Word of Command in the Foot, when they lay down their Arms, at which they stand up, till they are ordered to the Right about, at which they march clear of their Arms and disperse; but upon the Beat of Drum they run to their Arms with a *Huzza*, having their Swords drawn, and the Point upward.

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RABINET, a small sort of Ordnance between a *Falconette* & a *Base*, seldom used.

To RAISE a Siege, is to give over the Attack of a Place, and to quit the Works thrown up against it, and the Posts taken about it. If there be no Cause to fear a Sally from the Place, then the Siege may be raised in the day time, by sending first the Sick and wounded, the *Baggage*, the *Sutlers*, broken Cannon and Mortars, and if possible, all the Instruments which have been used in the Siege. The Artillery and Ammunition may follow, and a strong

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Rear-Guard must face the Besiegers, in case they should offer to charge the Rear. But if there be any Fear of an Enemy in Front, this Order must be altered according to the Prudence of the General, and as the Nature of the Country will allow.

To raise a Plan of a Fortrefs, is the measuring with Cords and Geometrical Instruments, the Length of the Lines, and the Capacity of the Angles, that by knowing the Length, Breadth, and Thickness of all the different Parts of a Fortification, it may be represented in small upon Paper, so as to know the Advantages and Disadvantages of it.

RAMPART, is an Elevation of Earth round a Place, capable of covering the Buildings from View, and from resisting the Cannon of an Enemy, as likewise of raising those that defend it, that they may discover the Country about it. A *Rampart* ought to be sloped on both Sides; that is, the Mass of Earth which composes the Rampart, ought to be larger at Bottom than at Top,

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more

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more or less, according to the Nature of the Earth: It ought to be broad enough to allow the marching of Waggon and Cannon, besides the *Parapet* which is raised on it; its Thickness is generally about 12 Fathom, with the *Talus* or *Slope*. The Earth which makes the *Rampart*, is taken from the outside of it, because then the *Rampart* and *Foss* are made at the same time: from which it follows, that their Proportions depend on one another; for since the *Rampart* is made of a certain Bigness, the *Foss* must be dug deep enough to afford Earth for the *Rampart*, the *Parapet* and the *Esplanade*.

RENDEZVOUS, is the Place appointed by the General, where all the Troops which are to compose his Army, are to meet at a Day prefixed.

RANK, is the Order or Straight Line made by the Soldiers of a Battalion or Squadron, drawn up Side by Side; this Order was established for the Marches, and for regulating the different Bodies of Troops and Offi-

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cers which compose an Army or a Battalion. *Doubling of the Ranks*, is the putting two *Ranks* into one.

RATION, is a Portion of Ammunition, Bread or Forrage, distributed to every Man in the Army. A *Foot Soldier* receives a *Ration* of Bread, which is a Pound and a half for each Day; and a *Trooper* a *Ration* of Bread, and another of Forrage.

RAVELINS, are Works raised on the *Counterscarp* before the *Curtin* of a Place, and serve to cover the Gates of a Town, and the Bridges. They consist of two *Faces* forming a Salient Angle, and are defended by the *Faces* of the neighbouring Bastions. The Half-Moons which cover the Points of the Bastions, have their Defences from the Ravelins. They are the most in use of all Out-Works, and are by the Soldiers most commonly called Half-Moons. They ought to be lower than the Works of the Place, that they may be under the Fire of the Besieged, in case the Enemy should endeavour to lodge themselves there. Their

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Their Parapets, as those of all Out-Works, ought to be Cannon-Proof; that is to say, about 18 Foot thick; their Ramparts ought to be the half or third of one of the Flanks of the Place, and the Breadth of their Moats half the Breadth of the Moat of the Place.

REAR of an Army, or of a Battalion, signifies generally, either the hindmost part of the *Army*, or *Battalion*, or the Ground behind it.

Rear-Guard, is that Body of the Army which marches after the Main Body; for the March of an Army is always composed of an Advance-Guard, a Main-Body, and a Rear-Guard; the first and last commanded by a General-Officer in Person. The Old Grand-Guards of the Camp, are always the Rear-Guard of the Army, and are to see that every thing come safe up to the new Camp.

Rear-Half-Files, are the three hindmost Ranks of the Battalion, when it is drawn up six deep.

Rear-Line of an Army encamped, or *second Line*, is always 400 or 500 Yards

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distant from the first Line, which is likewise called the Front-Line; these two Lines run parallel, and have sometimes a third, which is called a Reserve.

Rear-Rank, is the last Rank of a Battalion, when drawn up.

RECOILE, or *Reverse of a Gun*, is its running back when fired, which is occasioned by the struggling of the Powder in the Chamber, and its seeking every way to fly out. Guns, whose Vents are a little forward in the Chace, recoil most. To lessen the Recoil of a Gun, the Platforms are generally made sloping towards the Embasures of the Battery.

RECRUITS, are new Men raised to supply the Places of such as have lost their Lives in the Service, or are rendered unserviceable by Age or Wounds. *Recruit-Horses*, are the Horses brought up for completing the Regiments of Horse or Dragoons every Year.

RECTANGLE, see *Angle*.

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REDANS,

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REDANS, or Indented Works, are Lines or Faces forming, sallying, and Re-entring Angles flanking one another, and are generally used on the Sides of a River, which runs through a Garrison Town. They were used before Bastions were, and are by some thought preferable to them.

REDOUBTS, are square Works of Stone raised without the Glacis of a Place, about a Musquet-Shot from the Town, with a Foss round them, having Loop-Holes for the Musqueteers to fire through ; sometimes they are of Earth, having only a Defence in Front, surrounded with a Parapet and Foss : Both the one and the other serve for detached Guards to interrupt the Enemies Works. They are sometimes made for the Angles of the Trenches, for covering the Work-men against the Sallies of the Garrison. The Length of their Sides may be from ten to twenty Fathom ; their Parapet, having two or three Banquetts, must be about nine or ten Foot thick, and their Foss the same, both the Breadth

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and Deepness ; they contain a Body of Men for the Guard of the Trenches, and are likewise called Places of Arms.

REDUCE a Place, is to oblige the Governour to surrender it to the Besiegers, by Capitulation.

REDUIT, Castlo, or Donjohn, is a Place more particularly entrenched and separated from the rest by a Foss. There is generally in each of them a high Tower, from whence the Country round the Place may be discovered.

REFORM ; to reform, is to reduce a Body of Men, by either disbanding the whole, or only breaking a Part, and retaining the rest ; or sometimes by incorporating them into other Regiments.

REFORM'D-OFFICER, is one whose Troop or Company is broke, and he continued in whole or half Pay, doing Duty in the Regiment ; he preserves his Right of Seniority, and continues in the Way of Preferment.

REGIMENT, is a Body of

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of Men either Horse or Foot, commanded by a Colonel, Lieutenant-Colonel, and Major; each Regiment of Foot is divided into Companies, but the Number of Companies differ; though in England our Regiments are generally thirteen Companies, one of which is always Grenadeers. Regiments of Horse are most commonly six Troops, but some of nine. Dragoon Regiments, are generally in time of War eight Troops, and in time of Peace but six. Each Regiment has a Chaplain, and a Surgeon. Some German Regiments consist of 2000 Foot, and the Regiment of Piccardy in France of 6000, being 120 Companies, at 50 in a Company.

REGULAR-ATTACKS, are such as are made in form, that is, by *Regular Approaches*.

REINFORCED-RING of a Gun, is that next the *Turnions*, between them and the Vent. The reinforced part of a Gun, is from the *Base Ring* to the *Reinforced-Ring*, being much thicker of Metal than any other part of the Piece, because of the

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great Force of the Powder.

REINFORCEMENT to an Army, is an Addition of fresh Troops to strengthen an Army, and to enable them to go on with an Enterprize.

RELIEVE; to relieve the Guard, is to put fresh Men upon the Guard. To relieve the Trenches, is to relieve the Guard of the Trenches, by sending off those who have been there upon Duty before.

REMOUNT; to remount the Cavalry of Dragoons, is to furnish them with Horses in the room of those which have been either killed or disabled.

RESERVE, is a Body of Troops sometimes drawn out of the Army, and encamped by themselves in a Line behind the other two Lines. See Camp.

RETIRADE, is a Trench with a Parapet. But Retirade or Coupure, is most ordinarily taken for a Retrenchment formed by the two Faces of a Re-entring Angle in the Body of a Place, after the first Defence is ruined, and the Besieged obliged

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ed to abandon the Head of the Work, without quitting it intirely ; therefore, while some are making Head to the Enemy, others ought to be busy in making the Retirade, which is only a simple Barricade or Retrenchment thrown up in haste, with a sort of Foss before it ; it depends upon the Knowledge of the Engineer to direct, and the Honour of the Officers and Soldiers to work at such a time, since they do it for the Defence of their Liberty ; and no Officer ought to think it below him to carry Fascines, or to throw up Earth to cover himself. The Retirade ought to be raised as high as possible ; and some Fourneaus or Fougades made under it, to blow up the Enemies Lodgments.

RETREAT, or *Tattou*, is a Beat of the Drum in the Evening, at the firing of a Piece, called the Warning-Piece, at which the Drum-Major, with all the Drums of the Battalion, except such as are upon Duty, beats round the Regiment ; the Drums of the Quarter-Guards, of the General's Guards, and all other small Guards, do

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likewise beat, the Trumpets at the same Time sounding at the Head of their respective Troops. This is to warn the Soldiers to forbear firing, and the Centries to challenge till break of Day, that the Reville is beat. The Retreat is likewise called setting the Watch.

REIRENCHMENT, is any Work raised to cover a Post, and fortify it against an Enemy, such as Fascines loaded with Earth, Gabions, Barrels of Earth, Sandbags, and generally all Things that can cover the Men, and stop the Enemy. But it is more particularly applicable to a Foss bordered with a Parapet ; and a Post fortified thus, is called Post retrenched, or strong Post. Retrenchments are either general or particular.

General Retrenchments, are new Fortifications made in a Place besieged, to cover the Defendants, when the Enemy become Masters of a Lodgment on the Fortification, that they may be in a Condition of disputing the Ground Inch by Inch, and of putting a Stop to the Enemy's,

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my's Progress, in Expectation of Relief. As, if the Besieged attack a Tenaille of the Place which they judge the weakest, either by its being ill flanked, or being commanded by some neighbouring Ground; then the Besiegers make a great Retrenchment, inclosing all that part which they judge in most Danger. These ought to be fortified with Bastions and Demi-bastions, with a good Foss, and should be higher than the Works of the Place, that they may command the old Works, and give the Besiegers great Trouble in covering themselves; they ought likewise to be countermined.

Particular Retrenchments, are such as are made in the Bastions, when the Enemy are Masters of the Breach. They can never be made but in full Bastions, for in empty or hollow Bastions there can be made only Retirades. These particular Retrenchments are made several Ways, according to the time they have to cover themselves; sometimes they are made before-hand, which is certainly the best: and a

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Retrenchment made beforehand, requires no more Men for its Defence, than if it were not made, because they never defend it till the principal Work be lost. The Parapets of such Retrenchments ought to be 5 or 6 Foot thick, and 5 Foot high, with a large and deep Foss, from whence ought to run out small Fougades and Countermines.

RETURNS of a Mine, are the Turnings and Windings of the Gallery; see *Gallery and Mine*.

Returns of a Trench, are the Turnings and Windings which form the Lines of the Trench, and are as near as they can be made parallel to the Place attacked, to shun being infiladed. These Returns, when followed, make a long Way from the End of the Trench to the Head, which going the strait Way is very short, but then the Men are exposed.

REVEILLE, is a Beat of the Drum about break of Day, to advertise the Army that it is Day-light, and that the Centries forbear challenging.

REVERSE,

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REVERSE, signifies on the Back, or behind. So we say, *Reverse View*, a *Reverse commanding Ground*, a *Reverse Battery*, &c.

REVIEW, is the drawing out all, or Part of the Army in Line of Battle, to be viewed by the General, that he may know the Condition of the Troops.

RHILAND-ROD, is a Measure of 2 Fathom, or 12 Foot, used by the Dutch Engineers.

RHOMB, is a four sided Figure, whose Sides are equal, but the Angles unequal.

RHOMBOIDE, is a four sided Figure, whose Angles and opposite Sides are equal, but all its four sides are not equal.

RIDEAU, is a rising Ground or Eminence commanding a Plain, which is sometimes near parallel to the Works of a Place. It is a great Disadvantage to have Rideaus near a Fortification, especially when they shoot from far, and terminate on the Counterscarp; for they not only command the Place, but likewise facilitate the Enemies Approaches.

Rideau is likewise a Trench covered with Earth, in form

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of a Parapet to cover the Soldiers.

ROLL; *Muste-Roll*, is a Scroll of Parchment, which each Captain gives the Muster-Master, on which are writ the Names of the Soldiers of his Company.

To roll in Duty, is when Officers of the same Rank take their Turns upon Duty, as Captains with Captains, and Subalterns with Subalterns, and command according to the Seniority of their Commissions.

ROLLERS, are round Pieces of Wood of about 9 Inches diameter, and four Foot long, which serve in moving Mortars from one Place to another, when it is near, by raising the fore part of the Bed so high, that one of these Rollers may be laid under it; then pushing the Bed forwards, and laying another in its Way, and another before that, and so on: Thus the Mortar is with little trouble brought to another Place.

ROUND, is a Night Watch commanded by an Officer, who goes round the Rampart of a Garrison, to listen

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listen if any thing be stirring without the Works, and to see that the Centries be diligent upon their Duty, and that every thing be in order : In strict Garrisons, the Rounds go every quarter of an Hour, that the Rampart may still be furnished : The Centries ought to challenge at a distance, and are to rest their Arms as the Round passes, letting no Man come near them. When the Round is near the Corps de Garde, the Centry calls aloud, *Who comes there* ; when it is answered, *the Round* ; he says, *Stand*, and calls for the Corporal of the Guard, who drawing his Sword, calls, *Who comes there*, and is answered, *The Round* ; then, *let him who has the Word Advance*. The Corporal receives the Word with his Sword drawn, and pointed at the Heart of him who gives it. When the Major goes the Round, the Officers of the Guard receive him with two Musqueteers, and give him the Word only once, which is when he goes his *Round-Major*. When the Governor goes his Round, the Officers draw out the Guard without Arms, and send four Musqueteers to receive him at ten Paces Distance, and give him the Word as often as he pleases to demand it : All other Rounds, without Exception, are obliged to give

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the Word to the Corporal of the Guard.

To RUN the Gauntlet, is a Punishment for considerable Offences ; when a Soldier is sentenced to run the *Gauntlet*, the Regiment is drawn out, and make a Lane, each Soldier having a Switch in his Hand ; the Criminal's Shoulders and Back are naked, and as he runs along, every one has a Stroke at him ; while he runs, the Drums beat at each end of the Lane ; sometimes he runs three times, sometimes 5, and sometimes 7 times, according to the Nature of the Offence.

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SAFE-GUARD, is a Protection granted by a Prince or his General to some of the Enemies Lands, to preserve them from being plundered. It signifies likewise a Trooper, who stays at the Entry of a Place protected, to hinder Soldiers which straggle off from the Army, from committing any Disorder.

SAKER, is a Piece of Ordnance, carrying a Ball of five Pound and a Quarter weight ; the Diameter of the Bore is 3 Inches and 9 Sixteenths of an Inch ; the Length of a Gun about 8 or 9 Foot ; it is a very good Field-Piece, and is always a part of the marching Artillery.

SALLY, is when the Be-
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sieged march out a part of the Garrison in the Night time, to attack the Besiegers in their Works, to nail their Guns, and to hinder the Progress of their Approaches. When a Place besieged is weak in Men, they make few Sallies; but when the Garrison is strong, and the Inhabitants numerous, the Governour ought to disturb the Enemy by frequent Sallies, which ought to be as secret as possible. Those who make the Sally, are to be armed with short Arms, and are to have Grenades, Firepots, Gouderons and Pioneers, to destroy and level the Enemies Works.

To SALUTE a Prince or Person of extraordinary Quality at his coming into a Garrison, is the firing of the Cannon round the Place: Likewise in the Field, when a Regiment is to be viewed by a King or his General, the Drums beat a March as he approaches, and the Officers salute one after another as he passes by, stepping back with the right Foot and Hand, and bowing the Spears of their Half Pikes to the Ground, and afterwards recovering them Gently, and bringing up the Foot & Hand, and planting them. As soon as they have saluted, they are to pull off their Hats without bowing, but standing upright. The Ensigns salute all together, bringing down their Co-

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lours near the Ground directly before them at one Motion, and having taken them up again gently, lift their Hats. If it be a Review of the Army, every Battalion is to salute with Pikes and Musquets charg'd.

SAND-BAGS, are Bags containing about a cubical Foot of Earth; they are used for raising Parapets in haste, or to repair what is beaten down; they are of use when the Ground is rocky, and affords no Earth to carry on their Approaches, because they can be easily brought from far, and removed at will. The smaller Sand-Bags contain about half a cubical Foot of Earth, and serve to be placed on the Superior Talus of the Parapet, to cover those behind, who fire through the Embrasures or Intervals left betwixt them.

SAP, is the digging gradually deep under the Earth, to pass under the Glacis, and open a Way to come under cover to the Passage of the Moat. After they have overcome all the Obstacles which the Besieged have opposed to hinder the Advancement of their Approaches, and that notwithstanding their frequent Sallies, they are at last got near the Foot of the Glacis, the Trench is carried directly forwards, the Workmen covering themselves the best way they can, with Blinds, Wool-

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Woolpacks, Sand-Bags, or Mantelets upon Wheels ; when they are got to the Foot of the Glacis, they make Epaulments or Traverses on each Side to lodge a good Body of Men. The Sap is made five or six fathom from the Salient Angle of the Glacis, where the Men are only covered side-ways, wherefore they lay Planks overhead, with Hurdles and Earth above them. Having by this means obliged the Enemy to quit the Covert-Way, the Pioneers, with Mantelets, Woolpacks, or Sand-bags, make immediately a Lodgment, covering themselves the most advantageously they can, from the Fire of the opposite Bastion.

SARRAZINE, is the same with Herse or Portcullis, see Herse.

SAUCISSE, is a long train of Powder sewed up in a Roll of pitch'd Cloth, of about two Inches diameter ; the Use of it is to fire Mines, or Caissors ; the length of it must reach from the Mine to the place where the Engineer is to fire it, to spring the Mine.

SAUCISSONS, are Faggots or Fascines, used in covering of Men, or making Epaulments. They differ from the ordinary Fascines, because they are made of thicker Wood or Branches of Trees, and tied at both ends and in the middle, and are about a foot and a half or two

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foot thick, and four foot long. They are good to stop Passages, and being mixed with Earth and Fascines to make Traverses over a wet Ditch.

SCALADE, or Elcalade, is a furious Attack upon a Wall or Rampart, contrary to Form, and with no Precaution, carried on with Ladders, to insult the Wall by open Force.

SCALE, is a right Line divided into equal Parts, representing Miles, Fathoms, Paces, Feet, Inches, or any other Measure ; it is used in making Plans upon Paper, in giving each Line its true Length.

SCARP, or Escarpe, is the Interior Talus or Slope of the Ditch next the Place, at the Foot of the Rampart or Liziere.

SCHENOGRAPHY, which is likewise called Profile or View, is the natural Representation of a Place, such as it appears to us, when we look upon it, from without, considering its Situation, the Form of its Walls, the Number and Figure of its Steeples, and the Tops of its Buildings, both publick and private.

To SCOUR a Line, is to flank it so as to see directly along it, that a Musquet-Ball entering at one end may fly to the other, leaving no Place of Security.

SENIORITY, is the difference of time betwixt the raising of two Regiments, whereby the one is said to be so much

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Senior than the other ; all Regiments take place according to Seniority. The difference of time betwixt the Date of two Commissions make the one Senior to the other ; and all Officers of the same Rank, roll by the Seniority of their Commissions.

SERGEANTS, are Staff-Officers in a Company of Foot, and are obliged to keep a List of the Soldiers and their Lodgings, and to visit them often ; they are to teach the Company the Exercise of their Arms, and how they are to keep their Ranks and Files ; their Post on a March is on the Flanks, to cause the Company to march in good Order. A Sergeant of each Company is to be on the Parade at Night, to receive the Orders and the Word from the Adjutant, which he is to carry to his Captains and Subalterns : When the Adjutant comes, the Sergeants place themselves in a Ring with him, according to the precedence of their Companies, with their Hats on the Spears of their Halbards ; and after he has given them the Orders, he whispers the Word to the first Sergeant, who gives it to the next, and so on, till it come to the youngest, who gives it to the Adjutant. They acquaint the Officers who are to go next upon Duty ; they visit the Mens Arms, and distribute Ammunition to them.

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Chain-Shot, is two whole or half Bullets joined together, either by a Bar or Chain of Iron, which allows them some liberty afunder, so that they cut and destroy whatever happens in their way, and are very serviceable in a Sea Battle, to cut the Enemies Sails.

SHOULDER of a Bastion, is where the Face and the Flank meet.

SIDES of Horn-works, *Tenailles*, *Crown-works*, &c. are those parts of their Ramparts which reach from the Border of the Foss of the Place, to the Head of the Work, which in Horn-works and Tenails are parallel ; sometimes these Sides are no longer than the reach of a Musquet-Shot, and are then defended from the Faces of the Place ; but when they are longer, they have either Flanks made in the long Sides, which are then said to have Shoulders ; or else they are indented or made with Redans, or with Traverses or cross Entrenchments in the Ditch,

SIEGE, is the Encampment of an Army entrenched and fortified round a place with an Intention to take it. When a General designs to besiege a Place, he must first order it to be invested by a Body of Horse, under the Command of a Lieutenant-General, to prevent any Succours from entering the Place.

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Place. The method of encamping in a Siege differs from that on a March ; for in a Siege the Army surrounds the Place that nothing may enter, and lies without Cannon-shot of the Town. If the Place be situated on a River, part of the Army is detached to the other side ; and Bridges of Communication are made above and below the Town, with Redoubts guarded by a Body of Foot. If the Place be encompassed with Mountains, they possess all the Heights from whence they can gaul the Enemy. At a Siege the Army encamps with their Backs to the Place ; Battalions and Squadrons interlined. The Engineers trace the Lines of Circumvallation and Contravallation, with Redoubts and Angles, at proper Distances, and every Regiment works at the Place appointed them. The Line of Circumvallation is without the Camp to prevent Succours. The Line of Contravallation, is that betwixt the Army and the Place, and it covers the Besiegers from the Sallies of the Garrison. When the General has disposed his Camps, and placed his Guards, and established the Lieutenant Generals to command in the particular Quarters, with Orders for their Conduct, he goes with the Engineers to view the Place, and orders the Attack in the Quarter

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he judges the weakest ; but because it is difficult to find two places situated after the same manner, so it is hard to make two Sieges in the same way ; for there are some Towns, where without opening Trenches, the Besiegers advance immediately and lodge themselves on the Counterscarp, by the Facilitation of Hollow Ways, Ruins, Cavities, or weak Suburbs. And there are others, where the Ground is better managed, where within Cannon-shot of the Out-works, there is nothing which can facilitate the Enemies Approaches. To such sort of places, which are not the worst, there must be Trenches and Approaches to gain the Ground foot by foot, which renders such Sieges dangerous and very long, because of many Accidents which happen daily in the Attacks, Sallies, and Mines, and other Accidents of War.

To make or form a Siege, there must be an Army sufficient to furnish 5 or 6 Reliefs for the Trenches, Pioneers, Guards, Convoys, Escorts, and what else may happen : An Artillery, with Magazines furnished with a sufficient quantity of Ammunition, and Provisions : And an Hospital with Physicians, Surgeons, &c. and Medicines.

To turn a Siege into a Blockade

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ade, is to give over the Attacks, and possess all the Avenues leading to the Place, to hinder any Succours or Convoys getting into it, with a Design to take it by Famine.

SILLON, is a Work raised in the middle of a Foss, to defend it when it is too wide : It has no particular Form, sometimes being made with little Bastions, Half-Moons, & Redans, which are lower than the Works of the Place, but higher than the Covert-Way. This Work is now called *Envelope*.

SIXAIN, an antient Order of Battle for six Battalions, which, supposing them all in a Line, is formed thus. The second and fifth Battalions advance and make the Van, the first and sixth fall to the Rear, leaving the third and fourth to form the Body. Each Battalion ought to have a Squadron on its Right, and another on its Left. Any number of Battalions produced of the number six, may be drawn up by this Order ; so 12 Battalions may be put into two *Sixains*, and 18 Battalions in 3 *Sixains*.

SKIRMISH, a sudden Encounter between two small Bodies of Men, without Order.

To SPIN Hay, is to twist it up in Ropes very hard for an Expedition in the Winter time ; each Trooper carrying

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as much as he can behind him.

SPUNGE of a Gun, is a long Staff put into a roll of Wood, which is covered over with a Sheep-skin, the Wool outwards, to sponge and clean the Gun. As soon as the Gun has fired, a Matross is ready with the Sponge, while another claps his Finger on the Vent to stop the Air, and stifle what Fire may remain in the Chamber. The Sponge, Rammer, and Ladle, after the Gun is loaded, are laid under her betwixt the Wheels.

SQUADRON, is a small Body of Horse, composed of 3 Troops, each 50 Troopers, making 150, and sometimes 200, when the Troops are larger, but never above that ; because a greater number can never be advantageously posted, nor have room to act in narrow Grounds. The eldest Troop takes always the Right of the Squadron ; the second the Left, and the youngest the Centre. A Squadron is always drawn up three deep, that is to say in three Ranks ; having the length of a Horse, or rather more between Rank and Rank. The Standard is always in the Centre of the first Rank. When the Army is encamped, a Squadron of Horse is allowed 30 Paces for their Front, and 30 Paces Interval between one Squadron and another ; on a March

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March the Squadrons of the same Column ought to keep a convenient distance.

SQUARE Battalion of Men, is that which is composed of an equal number of Men in Rank and File, or when the number of Men in each File, is equal to the number of Men in each Rank. *Square Battalion of Ground*, is when the Ground of the Flanks is of the same Extent, as the Ground of the Front and Rear. To make a *square Battalion of Men*, whose number is known, as 50, take the nearest Radix or square Root, which is seven, for the number of Men in Rank and File. To make a *square Battalion of Ground*, the number being likewise determined, as 60, *Manesson Mallet* says, that Number must be multiplied by 3, which is the number of Feet that every Man takes in Front, and the Product 180 divided by 7, which is the number of Feet that each Man taketh up in deepness, or the distance of the Ranks; the Quotient is 25; the square Root of which is 5, which is the number of Men in each File; and if by this Radix 5, you divide 60, the Quotient is 12 for the number of Men in each Rank.

Hallow Square, is a Body of Foot drawn up with an empty space in the middle for the Colours, Drums and Baggage, facing, and covered by the

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Pikes every way, to oppose the Horse.

STANDARD, is a piece of Silk or Damask, about a foot and a half square; on which is embroidered, the Arms, Device, or Cypher of the Prince, or of the Colonel; It is fixed on a Launce about 8 or 9 Foot long, and carried in the Centre of the first Rank of the Squadron; in rainy or bad Weather, it has a Case of Leather over it.

STAR-REDOUBTS are now out of Use. They were made with Saliant and Re-entering Angles, and had from 5 to 8 Points; and each of their Sides or Faces was from 12 to 25 Fathom long.

SUB-BRIGADEER, is a Post in the Troops of Guards, next under a Brigadier.

Sub-Lieutenant, is an Officer in Regiments of Fufeleers where there are no Ensigns, having a Commission as youngest *Lieutenant*, and Pay only as Ensign; but takes place of all Ensigns, except the Guards.

Subsistence, is the Money paid to the Soldiers weekly, not amounting to their full Pay, because their Cloaths, Accoutrements, Tents, Bread, &c. are to be paid; it is likewise the Money paid the Officers upon Accompt, till their Accompts be made up, which is generally once a Year, and then they are paid their Arrears.

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Subdivisions, are the lesser Parcels, into which a Regiment is divided in marching, being half the greater Divisions.

Surface, in *Fortification*, is that part of the exterior Side, which is terminated by the Flank prolonged or extended, and the Angle of the nearest Bastion. The Double of this Line with the Curtin, is equal to the exterior Side.

SUTLER, is he who follows the Army to sell all sorts of Provisions to the Troops. They pitch in the Rear of each Regiment, and about the Generals Quarters.

SWALLOWS-TAIL, is an Out-Work differing only from a single Tenaille, in that its Sides are not parallel, like those of a Tenaille; but if prolong'd, would meet and form an Angle on the middle of the Curtin; its Head or Front is composed of two Faces forming a Re-entering Angle. This Work is extraordinary well flanked and defended by the Works of the Place, which discover all the Length of its long Sides. But their great Fault is their not covering sufficiently the Flanks of the opposite Bastions.

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TAIL of the Trenches, or Opening of the Trenches, is the Post where the Besiegers begin to break Ground to cover themselves from the Fire of the

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Place, in advancing the Lines of Approach.

TALUS, is the Slope given to the Rampart or Wall, that it may stand the faster. All Ramparts ought to have a Talus on each side; that is, they ought to be broader at the Basis, than at the Top: the one is called the Exterior Talus, and the other the Interior Talus. And there is likewise a superiour Talus.

Exterior Talus, is the Slope given to a Work, on the side towards the Country, and ought to be as small as possible, that the Enemy may not find it easy to be mounted, either by Scalade or otherwise. But if the Earth be not good, the *Talus* must be large, that it may keep it up the better. In such a case it were good to support the Earth with a Wall, which the *French* call *Chemise*, when it is not thick, and otherwise *Revetement*, which signifies cloathing or fencing, to make the Earth last longer, and to save the making too large a *Talus*. This Wall ought to have a small *Talus* of a fifth or sixth part of its height, and for a Reinforcement it is generally supported in the inside by Counter-forts, or a sort of Buttresses.

Interior Talus, is the Slope of the Work next the Town, which is much larger than that of

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of the outside ; and has at the Angles of the Gorge, and sometimes in the middle of the Curtin, Ramps, or sloping Roads, to mount upon the Terre-plein of the Rampart. The Interior Talus of the Parapet, ought to be very small, that the Men may with more ease fire over it. See *Profile*.

Superior Talus of the Parapet, is the Slope on the top of the Parapet. This Slope allows the Soldiers to defend the Covert Way with small Shot, which they could not do were it level.

TATTOU, see *Retreat*.

TEMOINS, is a French Term for the pieces of Earth left standing as Marks or Witnesses, in the Fosses of Places they are emptying, to the end they may know exactly how many cubical Fathoms of Feet of Earth has been carried away, thereby to pay the Work-men.

TENAILLE, is an Out-Work longer than broad, whose long Sides are parallel ; and is either single or double. There are likewise Tenailles in the Foss.

Single Tenaille, is a Work whose Front is advanced towards the Country, having two Faces forming a Re-entring Angle ; its two long Sides terminate on the Counterscarp, opposite to the Angle of the Shoulder.

Double Tenaille, is a Work

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whose Front having four Faces, forms two Re-entring, and three Salliant Angles ; its long Sides are likewise parallel, and terminate on the Counterscarp, opposite to the Angle of the Shoulder. Both the single and double *Tenailles* have this fault, that they are not flanked or defended at the Re-entring Angle, because the height of the Parapet hinders the Soldiers from discovering before that Angle. Therefore *Tenailles* are only made when there is not time enough to make Hornworks. The Ramparts, Parapets, Fosses, Covert-Way, and Glacis of *Tenailles*, are the same with other Out-Works.

Tenaille in the Foss, is a low Work raised before the Curtin in the middle of the *Foss*, and is of three different sorts. The first is composed of a Curtin, two Flanks, and two Faces. The Rampart of the Curtin, including the Parapet and Talus, is but five Fathom thick, but the Rampart of the Flanks and Faces is seven. The second is composed only of two Faces, made on the Lines of Defence, whose Rampart and Faces are parallel. The third differs from the last, only in having its Rampart parallel to the Curtin of the Place. All these sorts are very good Defences for the Foss, and lie so low, that they cannot be hurt by

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the Besiegers Cannon, till it be on the Covert-Way.

Tenaille of a Place, or *Front of a Place*, is what is comprehended between the Points of two Neighbouring Bastions, as the Faces, the Flanks, and the Curtin. So it is said, The Enemy attacked the whole *Tenaille* of a Place, when they made two Attacks on the Faces of the two Bastions.

TERRE PLEIN *of a Rampart*, is the Horizontal Superficies of the Rampart, between the Interior Talus and the Banquett; 'tis on the *Terreplein*, that the Defendants go and come; it is likewise the Passage of the Rounds.

To **TERTIATE** *a Piece*, is to examine whether it has the due thickness of Metal in every place, and whether it be true bored.

TOISE, is a Measure used by the *French* Engineers in all their Fortifications, and is six Foot; a square *Toise* is 36 square Feet, and a cubical *Toise* is 216 cubical Feet.

TOMPION, is a Stopple of Wood or Cork, which is used in loading a Mortar; it is exactly fitted for the mouth of the Chamber, and is drove hard in after the Powder, and the Bomb is placed above it; it serves by confining the Powder, to make it burst out with the more Violence. *Tompion* is likewise a Stopple of Wood for

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the Mouth of the Mortar or Gun, to keep out the Rain.

TRANSUM, is a piece of Wood which goes a-cross betwixt the Cheeks of a Gun-Carriage, or of a Gin, to keep them fixed together; each *Transum* in a Carriage is strengthened by a Bolt of Iron.

TRAVERS, is a Trench with a little Parapet, sometimes two, one on each side; to serve as a Cover from the Enemy that might come on their Flank: sometimes it is covered overhead with Planks, and loaded with Earth. They are likewise advantageous in stopping the Enemy's Way, and to prevent being enfiladed. They are likewise a good Defence in a dry Foss, in making the Parapet on the side next the opposite Flank.

Traverse in a wet Foss, is made by throwing into the Foss over against the place where the Miner is to be put to the Foot of the Wall, abundance of Saucissons, Joysts, and other pieces of Wood, with Fascines, Stones, Earth, and all other things which can help to fill up the Foss, and be capable of carrying a Gallery for such as use it.

Traverse is likewise a Wall of Earth or Stone cross a Work which is commanded, to cover the Men.

To Traverse a Gun or Mortar,

T R E

tar, is to bring her about with Hand-spikes to the Right or Left, till she is pointed exactly at the Object.

Trench, which is likewise called Lines of Approach, and Lines of Attack, is a Way hollowed in the Earth, in Form of a Foss, having a Parapet towards the Place besieged, when the Earth can be removed ; or else it is an Elevation of Fascines, Gabions, Wool-Packs, and such other things that can cover the Men, and that does not fly in pieces or splinters to hurt them : This is to be done when the Ground is rocky, but when the Earth is good, the Trench is carried on with less trouble ; and the Engineer is to demand only Provision of Spades, Shovels, and Pickaxes, to enlarge the Trench 5 Foot deep, and two Fathoms wide. The greatest Fault a Trench can have, is to be enfiladed ; to prevent which they are usually carried on with Turnings and Elbows. As the Trenches are never carried on but in the Night-time by the Men, therefore the Ground ought to be exactly viewed, in the Day. On the Angles or Sides of the Trench, there ought to be Lodgments or Epaulments in form of Traverses, to hinder the Sallies of the Garrison, and favour the Advancement of the Trenches, and to sustain the Work-men. These Lodgments

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are small Trenches fronting the Place besieged, and joining the Trench at one end. The Platforms for the Batteries are made behind the Trenches, the first at a good Distance, to be used only against Sallies of the Garrison ; at the Approaches of the Place, to dismount the Artillery of the Besieged : The Batteries for the Breaches are made, when the Trenches are advanced near the Covert Way. If there be two attacks, there must be Lines of Communication or Boyaus between the two, with Places of Arms, at convenient Distances. The Trenches ought to be six or seven foot high with the Parapet, which ought to be five Foot thick, and have Banquets for the Soldiers to mount upon.

Returns of a Trench, are the Elbows and Turnings, which form the Lines of Approach, and are made as near as can be parallel to the Defences of the Place, to prevent their being enfiladed.

To mount the Trenches, is to mount Guard in the Trenches. *To relieve the Trenches*, is to relieve the Guards of the Trenches. *To dismount the Trenches*, is to come off the Guard of the Trenches. *To cleanse or scour the Trenches*, is to make a vigorous Sally upon the Guard of the Trenches ; forcing them to quit the Ground, break.

T R U

breaking down the Parapet, filling up the Trench, and nailing their Cannon.

Counter-Trenches, are Trenches made against the Besiegers, which consequently have their Parapet turned against the Enemies Approaches, and are enfiladed from several Parts of the Place, on purpose to render them useless to the Enemy, if they chance to be Masters of them; but they ought not to be enfiladed or commanded by any Height in the Enemies Possession.

TROOP of Horse or Dragoons, is a small Body of about 50 or 60; sometimes more, sometimes less; commanded by a Captain. Each Troop has, besides a Captain, a Lieutenant, Cornet, Quarter-Master, and three Corporals, who are the lowest Officers in a Troop. A Regiment of Light Horse in England, consists of six Troops, and sometimes nine.

TRUMPET, each Troop of Horse has two *Trumpets*. The sound of the Trumpet before a March, is to Boot and Saddle, at which the Troopers get themselves ready to mount; this is sounded when the Drums beat the General. When the Assembly is beat, the Trumpet sounds *to Horse*, and they all mount; the third is *to march*. The Trumpets

V E D

likewise found a Charge in Day of Battle, and the Retreat at Night.

TRUNIONS of a Gun, are the two Pieces of Metal sticking out on the sides of a Piece, by which it swings in its Carriage. They are generally the Diameter of the Ball of the Piece in Length, and their Diameter is the same with the Diameter of the Ball. The Axis of the Trunions, is equal with the lowermost Side of the Chace of the Gun.

V.

VAN, or *Van-Guard*, is that part of the Army which marches in the Front. See *Guard*.

VEDETTE, is a Centry on Horse-back, or a Trooper upon a Centry Post. His Horse Head is towards the Place from whence any Danger is feared, and his Carbine is advanced with the Butt End against his right Thigh; when the Army lies encamped, there are *Vedetts* posted at all Avenues, and on rising Grounds, to watch for its Security.

To *VIEW* a Place in order to besiege it, which the *French* call *Reconnoitre*, is when the General accompanied by the Engineer, rides round the Place, observing the Situation of it, with the Nature of the Country about it; thereby to judge of

W A D

of the most convenient Place for opening the Trenches, and carrying on the Approaches ; to find proper Places for encamping the Army, for the Lines of Circumvallation and Contravallation, and for the Park of Artillery.

To View or Reconnoitre an Enemy, is to get as near their Camp as possible, to see the Nature of the Ground, and the Avenues to it, to find out the Strength and Weakness of their Encampment, where they may be best attacked, or whether it be proper to hazard bringing them to Action. Parties of Horse, are generally sent out to view the Enemies March, to know whither it tends, thereby to guess at their Designs, and to regulate the Motions of the Army accordingly.

To view or reconnoitre, is likewise when the Quarter-Master-General, with a strong Party of Horse, goes to view the Ways for the March of the Army, and to find the most convenient Place for an Encampment.

VOLUNTEERS, are Persons of Quality, who serve in the Army, without being engaged to any Captain ; but upon their own Expence are ready upon all Occasions to gain Honour and Preferment, by exposing themselves in the Service.

W

W A D D, is a Stopper of

W E L

Hay or Straw forced into a Gun upon the Powder, to keep it close in the Chamber ; when it is home at the Powder, the Gunner gives it generally three thumps with the Rammer Head.

W A D - H O O K or Worm, is a small Iron turned Serpent-wise, like a Screw, and put upon the end of a long Staff, to draw out the Wad of a Gun when she is to be unloaded.

Waggon-Master-General, is he who has the ordering and marching of the Baggage of the Army. On a Day of March, he meets the Baggage at the Place appointed in the Orders, and marshals it according to the Rank of the Brigade or Regiment each Waggon belongs to, and marches it according to the Rout given him, which is sometimes in one Column, sometimes in two ; sometimes after the Artillery, and sometimes the Baggage of each Column follows their Respective Column.

WARNING-PIECE, is the Gun which fires every Night about Sun-Set, to give Notice to the Drums and Trumpets of the Army, to beat and sound the Retreat or Tattou, which is likewise called setting the Watch.

WELL, is a Depth sunk in the Ground by the Miner, from whence he runs out Branches or Galleries in Search of the Enemies Mine to disappoint it, or

W H E

or to make a Mine.

WHEEL, is a Word of Command, when a Battalion is to alter their Front. When a Battalion is to wheel to the Right, every Man moves and wheels from the Left to the Right, only the Man on the right Angle turns very slowly, being as it were the Hinge on which the rest move. When a Battalion is commanded to wheel to the Left, the Soldier on the left Angle turns slowly, while the Right wheels from the Right to the Left. When the Word of Command *Wheel*, is given to a Division of Men upon a March, if it be to the Right, the Right-hand Man keeps his Ground, turning only on the Heel, while the Left-hand Man moves about quick, till he makes an even Line with the Right-hand Man. If it be *Wheel to the Left*, the contrary is to be observed. *To wheel by single Ranks*, if it be to the Right, the Right-hand Man of each Rank turns on his Heel, while the Left-hand Men move round, and the whole are formed into one Rank, fronting as their Flank was before. To reduce them into Ranks again, the Left-hand Men turn on their Heels, while the Right-hand Men move round. The motion of wheeling is of great use, if a Battalion be threatned with an Attack upon its Flank, or if

W O R

there be a Design of falling upon the Enemies Flanks. Squadrons of Horse wheel after the same manner.

WICKET, is a small Door in a Gate of a fortified Place, at which a Man on Foot may get in, which is sometimes opened when the Gate is ordered to be kept shut. The Height of it is about three Foot and a half, the Breadth two.

WINDAGE of a Gun, is the Difference between the Diameter of the Bore, and the Diameter of the Ball; for since the Balls are rough, if they were not somewhat less than the Bore, they might jamme in the Piece; so the *Winnage* of a Demi-Culverin is a quarter of an Inch.

WINDLACE, is a Roller of Wood, square at each End, through which are either Cross Holes for Hand-Spikes, or Staves across, to turn it round; by this means it draws a Cord, one End of which is fastened to some Weight which it raises up. They are used in Gins, and about Dutch Mortars, to help to elevate them.

Wings of a Battalion, are the Right and Left-Hand Files; when a Battalion is drawn up, the Divisions on the Right and Left are called the Wings.

WORD in an Army or Garrison, Mark of Distinction, by which Spies or treacherous Persons

W O R

Persons are known ; it serves likewise to prevent Surprizes. It is given out every Night by the General to the Lieutenant General, or Major General of the Day, who gives it to the Majors of Brigades, they to the Adjutants, who give it first to their Field-Officers, and afterward to a Serjeant of each Company, who carry it to the Subalterns. In a Garrison it is given by the Governour after the Gates are shut, to the Town-Major, who gives it to the Adjutants, and they to the Serjeants.

Words of Command, are the

Y O U

Terms used by Officers in exercising Battalions or Squadrons, or when they are upon Action.

WORKS ; all the Fortifications about a Place, are called the Works of the Place ; and more particularly all detached Works, are called the Out-Works.

Y

YOUNGER Officer, is he whose Commission is of a later Date.

Younger Regiment, is that which is of a shorter standing, with Relation to another.

F I N I S.

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